



Archaeological Desk-Based Assessment

Downley Drive,
New Islington,
Manchester

Client:

Great Places Housing
Association

Technical Report:

Ella Cole

Report No:

2021/25



Site Location: The site lies within the New Islington area of Manchester city centre and is bounded by St Vincent Street and the Rochdale Canal to the north, edges of existing dwellings on Woodward Place to the west, Downley Drive to the south and Kingham Drive to the east.

NGR: Centred at NGR SJ 385370 398740

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Author: Ella Cole
Position: Heritage Researcher
Date: April 2021

Checked By: Anthony Lee
Position: Senior Project Manager
Date: April 2021

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Contact: Salford Archaeology, Centre for Applied Archaeology, Peel Building, University of Salford, Salford, M5 4WT

Telephone: 0161 295 2144 Email: a.lee10@salford.ac.uk

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Summary

Great Places Housing Association is devising proposals for the redevelopment of an area of land off Downley Drive within the New Islington area of Manchester. In order to facilitate the planning process, Great Places Housing Association commissioned Salford Archaeology to carry out an archaeological desk-based assessment of the proposed development site. This was intended to establish, as far as possible, the nature and significance of the sub-surface archaeological resource in order to enable informed recommendations to be made for the future treatment of any surviving remains.

Historic mapping shows the proposed development site was part of a rural landscape during the late eighteenth century. Shooters Brook bordered the eastern side of the development area, which was bisected by a field boundary. During the early nineteenth century, the Rochdale Canal was built bordering the northern boundary of the development area. By the mid-nineteenth century, the proposed development site was surrounded by back-to-back workers housing. The Titanic Steel Works, established by Hackney & Bott, was constructed within the proposed development site during the second half of the nineteenth century. Ducie Saw Mills, formerly located to the north of the proposed development site, had multiple wood stores along the canal, including along Woodward Place and within the northern part of the proposed development site. By the early-twentieth century, the Titanic Steel works was replaced by St Vincent's Home, which was a Magdalen Laundry run by the Sisters of Charity.

Remains of the industrial sites formerly located within the proposed development site, such as the Titanic Steel Works, Ducie Saw Mills and a cooperage may survive as buried archaeological remains. Buried remains of workers' housing may survive along within, or bordering, the proposed development site, as well as remains of St Vincent's Home.

Archaeological remains of the Titanic Steels Works and St Vincent's Home would be of high local significance. Other archaeological remains within the development area would be of local significance. Delivery of the development proposals will necessitate some ground-breaking and landscaping works across the development area, with the potential to impact on buried archaeological remains.

The assessment has demonstrated that there is potential for buried archaeological remains to exist within the development area, which, pending the extent of their survival and condition, would merit preservation 'by record'. The scope and extent of any such further investigation will be determined by the Greater Manchester Archaeological Advisory Service (GMAAS), in their capacity as archaeological advisor to Manchester City Council. It may be anticipated, however, that further archaeological investigation via an archaeological strip, map and record evaluation may be required to establish the presence or absence of buried archaeological remains and, if present, their extent and significance. Should significant archaeological remains be encountered during the strip, map and record, further excavation may be required to offset the harm of the development to the buried archaeological resource, in line with the guidance provided by the National Planning Policy Framework.

1. Introduction

1.1 Planning Background

In December 2020, Great Places Housing Association commissioned Salford Archaeology to carry out an archaeological desk-based assessment to support a planning application for the redevelopment of the Downley Drive site within the New Islington area of Manchester (centred on NGR SJ 385370 398740; referred to herein as 'the Site'). The proposed development will deliver 68 affordable homes, comprising of 23 houses and 45 apartments within a four-storey building, alongside associated landscaping, boundary treatment, car parking, and cycle parking. The desk-based study aimed to identify as far as possible the nature, extent and significance of the sub-surface archaeological resource within the Site so as to enable informed recommendations to be made for the future treatment of any surviving remains.

1.2 Government and Local Planning Policies

1.2.1 National Planning Policy Framework (NPPF)

The significance of the archaeological resource identified within this report has been assessed as recommended in the revised *National Planning Policy Framework* (Ministry of Housing, Communities and Local Government, revised February 2019). The NPPF sets out the Government's planning policies and outlines the presumption in favour of sustainable development, which is defined by three principles: economic, social and environmental. Of the core planning principles underpinning decision making, conserving heritage assets 'in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of existing and future generations' is one. Section 16 deals specifically with this historic environment (paragraphs 184-202), and states that local planning authorities should consider:

- the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation.
- the wider social, cultural, economic and environmental benefits that conservation of the historic environment can bring.
- the desirability of new development making a positive contribution to local character and distinctiveness; and
- opportunities to draw on the contribution made by the historic environment to the character of a place.

Paragraph 189 states that local planning authorities, when determining applications, should require the applicant to describe the significance of any affected heritage assets, including any contribution made by their setting. 'The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes, or has the potential to include, heritage assets with

archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation’.

Paragraph 197 states that the effect of a proposal on non-designated heritage assets (designated assets are covered in paragraphs 193-96) should be taken into account in determining a planning application.

Paragraph 199 states that local planning authorities should require developers to record and advance understanding of any heritage assets to be lost, in a manner appropriate to their importance and impact, and to make this evidence publicly accessible.

1.2.2 Local Development Framework

The NPPF outlines the need for local planning policies to create local plans and frameworks to implement the NPPF at a local level. Manchester City Council adopted a Core Strategy in 2012, which is scheduled until 2027. The heritage strategy is outlined in *Objective 6: Environment* and summarises the approach the local authority will take in determining planning applications which may affect the historic environment.

Policy EN3 states:

‘Throughout the City, the Council will encourage development that complements and takes advantage of the distinct historic and heritage features of its districts and neighbourhoods, including those of the City Centre.

New developments must be designed so as to support the Council in preserving or, where possible, enhancing the historic environment, the character, setting and accessibility of areas and buildings of acknowledged importance, including scheduled ancient monuments, listed buildings, registered parks and gardens, conservation areas and archaeological remains. Proposals which enable the re-use of heritage assets will be encourage where they are considered consistent with the significance of the heritage asset.’

Manchester City Council is advised on archaeological matters by the Greater Manchester Archaeological Advisory Service (GMAAS).

2. Methodology

The assessment considers the potential impact of the proposed development upon any buried archaeological remains within the Site, and comprises a desk-based study and site inspection. The production of the assessment followed the Chartered Institute for Archaeologists (CIfA) standard and guidance for undertaking archaeological desk-based assessments (*Standard and Guidance for Historic Environment Desk-based Assessment*, 2017).

2.1 Research Sources

The desk-based assessment made use of the following sources:

- Published and unpublished cartographic, documentary and photographic sources;
- The Greater Manchester Historic Environment Record, maintained by the Greater Manchester Archaeological Advisory Service;
- Manchester Local Archives and the Greater Manchester Record Office in Manchester Central Library;
- The National Heritage List for England;
- Salford Archaeology's extensive library of archaeological work carried out in the vicinity of the Site.

The aim of the research was to provide the relevant historical and archaeological background relating to the development of the Site. The available sequence of historical mapping was the principal source of information, as this provides evidence for the development of the Site since the late-eighteenth century.

2.2 The Document

The following presents the historical and archaeological evidence for the Site. A gazetteer (Chapter 5) is presented of heritage assets and sites of potential archaeological interest identified within the Site and this information, along with a map regression (Figs 2-11), is used to assess the significance of the remains (Chapter 6) and impact of the proposed development (Chapter 7). A mitigation strategy is outlined in Chapter 8, based on the assessment presented in the previous chapters.

3. The Setting

3.1 Location

The Site (centred on NGR SJ 385370 398740) is situated in the New Islington area of Manchester (Plate 1; Fig. 1). The Site is bounded by St Vincent Street and the Rochdale Canal to the north, edges of existing dwellings on Woodward Place to the west, Downley Drive to the south and Kingham Drive to the east. The western portion of the Site is currently vacant and secured by fencing, comprising predominantly of overgrown shrubland with a limited number of trees. An unadopted path cuts through the Site from St Vincent Street to the north to Downley Street to the south. The site lies at a height of approximately 50m above Ordnance Datum (aOD).



Plate 1: Recent aerial view looking north across the Site

Topographically, the Manchester conurbation as a region lies within an undulating lowland basin, which is bounded by the Pennine uplands to the east and to the north. The region as a whole comprises the Mersey river valley, whilst the rivers Irwell, Medlock, and Irk represent the principal watercourses in Manchester (Countryside Commission 1998, 125).

3.2 Geology

The Site is located on a band of solid geology comprising of Collyhurst Sandstone to the east and Manchester Marl to the west, drift deposits on and off site are indicated as Devensian Till (Diamicton clay). The Made Ground generally comprises of topsoil, ash, cinder, gravel and brick fragments, the Made Ground is weak and poorly compacted, and the horizon between Made Ground and Glacial Till is clearly defined. The Phase 2 - Geo Environmental Investigation and Assessment report (Daines *et al* 2021) notes that trial pits did not expose any existing structural foundations, however, due to significant historical development on the site the possibility of the survival of foundations and/or basements from previous developments remains.

3.3 Designations

The Site does not contain any statutory designated sites such as Listed Buildings, Scheduled Monuments, or any Registered Parks and Gardens. Although the Site does not fall within the Ancoats Conservation Area, the description of the area equally pertains to this Site.

Ancoats Conservation Area Description:

"The streets of Ancoats were laid out during the latter part of the eighteenth century, with little development taking place other than small houses and shops along Great Ancoats Street and Oldham Road. Survey work for the Rochdale Canal was carried out by James Brindley in 1765. The knowledge that its construction would make the transport of raw materials and finished goods more convenient gave industrialists the confidence to build their cotton mills. The first mills were built in Ancoats as early as 1790. From the opening of the Rochdale Canal in 1804 through to 1912, the development of mills continued on a much larger scale, and enough of these buildings remain to enable the progress of mill design to be appreciated today.

The first single-class housing area in the country was built in 1889 to provide homes for mill workers in Ancoats. This block, called Victoria Square, was the first example of municipal housing in Manchester, which was followed shortly by the development of model housing in adjacent Anita Street (originally known as Sanitary Street).

The substantial economic activity generated by such a concentration of mills was halted by the slump in the cotton industry in the 1930's. Thereafter, the prosperity of the mills declined steadily, and the only new industry to establish itself in Ancoats was newspaper printing. In 1939, the Daily Express newspaper company opened new premises, which were built in the "functional" style, using new curtainwall technology identical to that of the company's buildings in London and Glasgow."

Ancoats and its buildings today

"Ancoats, with its concentration of mill buildings, is an important landmark in the history of the Industrial Revolution. Old Mill, which is probably the oldest surviving in Manchester, was built in two phases in 1798 and 1801. It is one of the group of Murray's Mills and was constructed around a courtyard, with a canal basin and tunnel under one of the mills and Redhill Street, connecting it with the Rochdale Canal.

The firm of McConnel and Kennedy, whose group of mills was the largest cotton employer with 1500 workers, claimed to be the first to run spinning mules by steam power. Sedgwick Mill, dating from 1818-1820, is the oldest of the group still standing, and it is believed to be the oldest surviving iron-framed, fireproof factory in Greater Manchester.

Beehive Mill, completed in 1824, has internal timber construction with rare cast-iron roof trusses, whilst the warehouse part has stone flag floors supported on cast-iron T-beams. The roof is a very early cast-iron spaceframe structure, unique in the area. These three groups of buildings, together with Brownsfield Mill on the other side of Great Ancoats Street, represent the chronological development of cotton mill architecture from 1800 to the 1920's. Together they constitute the first industrial estate in the world.

Although the area is dominated by the massive mill buildings, it also contains other listed buildings of differing character. The Victoria Square housing, noted earlier, is a five-storey block of flats dating from 1889. Built in red brick with a pitched slate roof and in the form of an enclosed courtyard, it may fairly claim to be one of the most successful local authority housing schemes in Manchester, due in part to its enclosure of shared inner space.

Modern printing technology has meant that the original Daily Express building is not now used for that purpose, although it is still in commercial use. Printing now takes place in new premises to the rear of the original building. The church of St. Peter in Blossom Street, built of brick in the Romanesque style, dates from 1860. It is hoped that the building will be converted to a new use, as the religious use has now ceased following the steady decline in the population of the Ancoats area.

The Crown and Kettle public house on the corner of Oldham Road and Great Ancoats Street, is a late nineteenth Century buff brick, Gothic-style building with stone traceried windows.

These latter buildings, together with the older non-listed buildings in the area, provide a contrast of architectural styles with the with the surviving massive mill buildings. The character of the area remains largely industrial; therefore any new development must ensure retention of that character through detailing and the use of compatible materials. The maintenance of road surfaces, kerbstones and street lighting, together with vacant site enclosures and "hard and soft" landscaped areas will also be essential."

There are also 10 statutory listed buildings within a 350m radius of the Site (Table 1). The impact of the development upon the conservation area will be assessed in a separate heritage statement, and therefore these heritage assets are not considered further in this report.

List Entry No.	Description	Grade	NGR
1220282	Former warehouse and offices of Old mill, Decker mill, and New mill	II	SJ85033 98601
1283019	Ardwick and Ancoats Hospital	II	SJ85451 98426
1200821	New Mill, Jersey Street	II*	SJ85032 98642
1247473	Decker Old Mill	II*	SJ85072 98584
1197777	Bridge Number Four over Ashton Canal	II	SJ85639 98484
1270860	Rochdale Canal Retaining Wall on South Side of Redhill Street, West of Union Street Bridge	II	SJ85047 98546
1291735	Beehive Mill	II*	SJ85097 98719
1270855	Doubling Mill & Fireproof Mill, Redhill Street	II*	SJ85106 98622
1247550	Union Street Bridge, Redhill Street	II	SJ85162 98639
1282961	Little Mill	II	SJ85095 98667

Table 1: Summary of listed buildings within a 350m radius of the Site

4. Historical Background

The following section provides a framework to the present study, working chronologically through the periods listed below (Table 2). Key sites are summarised in the Gazetteer of Sites (Section 5, below).

Period		Date Range
Prehistoric	Palaeolithic	Pre-10,000 BC
	Mesolithic	10,000 – 3500 BC
	Neolithic	3500 – 2300 BC
	Bronze Age	2300 BC – 700 BC
	Iron Age	700 BC – AD 43
Romano-British		AD 43 – AD 410
Early Medieval		AD 410 – AD 1066
Late Medieval		AD 1066 – AD 1540
Post-medieval		AD 1540 – c 1750
Industrial Period		c AD1750 – 1914
Modern		Post-1914

Table 2: Summary of British archaeological periods and date ranges

4.1 Prehistoric Period

4.1.1 Archaeological Evidence

The current understanding of any human activity in the Manchester region during the prehistoric period is poor, although it is reasonable to suggest that several areas in the centre of the city, such as Castlefield and Ardwick, may have been conducive for late prehistoric settlement on account of the natural topography and the abundance of natural water sources (i.e. rivers) (Gregory 2007). The Site is located near to the River Medlock, which makes the area favourable for early activity (Arrowsmith 2010).

Physical indications of human activity are provided by a small number of residual finds. A Neolithic flint flake was found at Spinning Field, near Deansgate, and reported in the *Transactions of the Lancashire and Cheshire Antiquarian Society* in 1892 (HER 414.1.0; Sutton 1892). A Neolithic stone hammer and arrow head, for instance, were unearthed in the Castlefield area of Manchester in 1845 (HER 119.1.0), whilst excavations at 77-83 Liverpool Road (HER 13944.1.0) produced two Mesolithic flints, one Neolithic/Bronze Age waste flake and a single sherd of late Bronze Age/Iron Age pottery. These finds complement a growing regional body of finds representing prehistoric activity, known to be concentrated on well-drained sand and gravel sites in proximity to watercourses and moss lands.

Cartographic evidence from Green Map of Manchester & Salford (1787 - 94) shows the Site was bisected on its eastern boundary by Shooters Brook. The location of the Site near the River Medlock and Shooters Brook make the area favourable for early activity.

4.1.2 Archaeological Potential

There is no known evidence for prehistoric activity within the boundary of the Site, and the potential for any such remains to survive from this period is considered to be very low.

4.2 Romano-British Period

4.2.1 Archaeological Evidence

The first military occupation of Manchester was established during the governorship of Agricola (AD 77-84), and commenced with a five-acre wooden fort, known as *Mamucium* (Bruton 1909), situated c 2km south-west of the Site. The fort underwent several phases of development subsequently, the earlier defences being deconstructed and improved. The military complex evolved in response to the on-going military campaigns, from a purely defensive site to an established supply depot, essential to the expansion and consolidation of control in the region. The maturation of the military complex can be seen in the growing body of evidence for a military annexe, occupying an area to the north and east of the fort (Arrowsmith 2016, 9-12). Evidence pertaining to this annexe is relatively scant and thus the exact nature of early settlement is unclear.

As this military complex developed, a grid of roads was laid out and a substantial extramural settlement, or *vicus*, grew up. This settlement was made up of civilians, attracted by the security and commercial benefits of the nearby fort. Based on archaeological excavations and the distribution of Roman finds, the limits of this civilian settlement appear to have extended south-eastwards along Chester Road, terminating somewhere in the vicinity of Great Jackson Street, northwards from the fort to approximately Quay Street, westwards along Liverpool Road for c 100m from the north-west corner of the fort, and eastwards across Deansgate to the area now occupied by Beetham Tower. Roads from the fort linked Manchester with Buxton to the south-east, Chester to the south, Wigan to the north-west, Ribchester to the north, and Castleshaw and York to the north-east. The Roman Road from Manchester to Castleshaw likely followed the course of the present Old Mill Street, which is located approximately 390m to the south of the Site. The settlement was well connected in terms of trade and consequently lasted until the late third century AD.

4.2.2 Archaeological Potential

The potential for any remains of Romano-British activity to exist within the Site is considered to be very low.

4.3 Medieval Period

4.3.1 Historical and Archaeological Evidence

There is very little archaeological evidence in the region as a whole that represents the period between the end of the Roman occupation and the Norman Conquest of 1066. The area around Manchester came under the control of several kingdoms during this period. In AD 620, Edwin occupied Manchester, and it may have been at this time that settlement in the town was established around the cathedral (Farrer and Brownbill 1908).

In AD 919, the Anglo-Saxon king, Edward the Elder, established a fortified base, or burh, at Manchester, which was then part of Viking Northumbria. It has been suggested that the burh lay within the area around the cathedral, which had become a focus for settlement by the late-eleventh century. The Site occupied presently by Chetham's School is thought to have been the site of a castle founded by Manchester's Norman barons.

Following the Norman Conquest, William I assigned most of the land between the Ribble and Mersey rivers to Roger of Poitou, who retained the manor of Salford demesne (Tupling 1962, 116), but divided his other newly acquired land into several fiefdoms (Kidd 1996, 13). The largest of these was the landholding centred on Manchester, created by the grant of extensive lands in the hundreds of Salford, Leyland and West Derby to Albert Grelley (Tupling 1962, 116).

By the thirteenth century, the Grelley family had established a manor house at the confluence of the rivers Irwell and Irk and the medieval town grew up around it (Hartwell *et al* 2004, 256). It was from this hall that they governed both the manor and the extensive barony. In 1222 Manchester was granted an annual fair, and in 1301 Thomas Grelley was granted the Great Charter of Manchester by Edward I, and thus it became a free borough (*ibid*).

4.3.2 Archaeological Potential

Given the location of the Site away from known medieval settlement activity, the potential for buried archaeological remains is considered to be low.

4.4 Post-medieval and Industrial Period

4.4.1 Historical Setting

During the eighteenth century, south-east Lancashire as a whole was predominantly an agricultural area of isolated settlements and market towns, with the burgeoning town of Manchester at its heart (Williams with Farnie 1992, 3). By the 1780s, the national demand for textiles and concomitant mill building transformed Manchester into a centre of the factory-based cotton-manufacturing industry (Baines 1835). The industrialisation of Manchester was greatly facilitated by an expansion of the region's waterways and the introduction of the canal network, which provided an efficient means of transporting bulk loads of goods. This crystallised with an Act of Parliament that made the rivers Mersey and Irwell navigable from Warrington to Manchester, opening up trade to Manchester and Salford from the expanding port of Liverpool. The first true industrial canal in Britain was that built by the Duke of Bridgewater, which was completed from his mines at Worsley to Manchester in 1764, the terminus of which was at Castlefield (Hadfield and Biddle 1970). The success of this canal saw numerous other inland waterways being opening during the late eighteenth century.

The Development of Ancoats: the Site lies in New Islington, which historically formed part of the Ancoats area of Manchester. By the beginning of the thirteenth century, the area was known as *Elnecot*, derived from the Old English *ana cots* which means 'lonely cottage' (Cooper 2002, 13). A fourteenth-century document refers to Ancoats as one of eight hamlets within the township of Manchester, itself forming part of the Hundred of Salford (Tait 1904). Ancoats retained a semi-rural aspect until the late eighteenth

century, but by 1800 the area had been transformed into an industrial suburb (Miller and Wild 2007).

This transformation began in the 1770s, when land owned by the Leigh family was sold to Thomas Bound, a builder, who then sold it on to others for development (Little 2002, 31). William Green's *Map of Manchester and Salford*, surveyed between 1787 and 1794, shows the focus for initial development to have been at the corner of Great Ancoats Street and Oldham Road, and depicts the main elements of the existing street plan laid out on former fields of the area. Building speculation then drove further expansion, with plots of land within a grid-iron pattern of streets being sold for development. The principle driving force of development was the national demand for textiles, particularly cotton, and the introduction of steam-powered spinning mills (Williams and Farnie 1992, 3).

The earliest textile factories in the area included several water-powered mills erected along Shooters Brook, to the south of Union (now Redhill) Street. There is some evidence to suggest, for instance, that New Islington Mill and Salvin's Factory originated in the late 1780s as water-powered textile mills situated on the bank of Shooters Brook (Miller and Wild 2007). However, this was a small watercourse, and in seeking a solution to the inadequate power supplied to their waterwheels from the brook, some manufacturers experimented with steam power. Notably, John Kennedy is reputed to have first applied steam power to one of his spinning mules whilst renting space at Salvin's Factory in 1793 (Lee 1972, 9).

It was on the basis of a breakthrough in the application of steam power, and the national demand for textiles, particularly cotton, that created the explosion of factory building in Ancoats (Little 2002, 31). This was fuelled by the potential of cheap and reliable transport for goods and materials offered by the construction of the Rochdale and Ashton under Lyne canals, and led to the creation of a new breed of mill building in Ancoats (Miller and Wild 2007). These were built on an unprecedented scale, many depending upon the developing network of short branch canals for transport and a source of water for their steam-power plants.

Numerous trades ancillary to textile manufacturing were also established in Ancoats during the nineteenth century, and large areas were developed for workers' housing. In an age when walking was the only viable means of travelling to work, these were built with little regulation around the industrial units. The net result was the creation of the world's first true industrial suburb: an edge-of-town industrial estate with associated housing, community facilities (churches, pubs and charitable refuges) and related businesses.

A key component of this new industrial townscape was the canal network, and particularly for the Ashton Canal and the Rochdale Canal, which formed a transport artery through Ancoats and also provided a source of water for the steam engines in the new textile factories. The Ashton Canal was proposed in 1791, and was intended to provide link between Manchester and the collieries in the Ashton and Oldham area. The canal was authorised by an Act of Parliament in 1792, and construction commenced immediately under the direction of Edward Banks (Hadfield and Biddle 1970).

The canal had been completed between Manchester and Ashton by early 1797, although the terminus basin at Piccadilly had yet to be constructed. It seems that James Meadows, the canal company agent, had been overseeing the construction of the canal up to that point but, in June 1798, Benjamin Outram was appointed by the canal company as engineer (Hadfield and Biddle 1970). In August 1798, the company appointed F Bellhouse to erect a warehouse at Ducie Street, and Outram was instructed to arrange for one or more cranes to be erected on the public wharves at the canal terminal. In the same year, Samuel Oldknow, chairman of the Peak Forest Canal Company, entered negotiations with the Ashton Canal Company with a view to purchasing land at the canal terminus. This was coupled with the intention of linking the Peak Forest Canal with the Ashton Canal in Ashton, thereby providing a direct link to Manchester from the limestone quarries in Derbyshire. The Ashton Canal was finally completed in 1799, and several warehouses were established at the terminus in Piccadilly Basin (Hadfield and Biddle 1970). Ashton Canal acted as catalyst for development in Ancoats, and the canal corridor heading north-eastwards out of Ancoats towards Bradford and Clayton became lined with textile mills.

4.4.2 *The Rochdale Canal*

The Rochdale Canal was authorised by an Act of Parliament in 1794, with the intention of providing a trans-Pennine route that would essentially link Manchester with the ports of the East Coast via the rivers Aire and Trent. The Rochdale Canal was linked to the Ashton Canal at Piccadilly in 1800. This enabled a link from Ashton to the Bridgewater Canal at Castlefield, and thus provided a direct route to the burgeoning port of Liverpool. These essential links made Piccadilly Basin a key location in the local canal network, and a focus for the trans-shipment of goods.

The first design for the Rochdale Canal Basin was proposed in 1796, and revised in 1804, although neither of these proposed schemes were carried out. The Rochdale Canal Company's first warehouse was eventually constructed in 1806, at the end of one of the canal arms to the east of Dale Street and survives today as Dale Warehouse. Dale Street effectively divided the basin into two with a smaller, western section bounded by Lees Street, London Road (later Piccadilly) and Ducie Street. The eastern section was bounded by Back China Lane, Upper Stanley Street, Leech Street and Ducie Street. A plan drawn up in 1810 closely resembles the final layout, and proposed 23 wharf plots, with two general wharves and the four buildings that had been completed by that stage (Maw *et al* 2009, 22).

Railway Competition: the introduction of a viable railway in the 1820s brought an alternative, and faster, means of transporting bulk goods. The advantages of this new form of transportation were recognised instantly, leading to the rapid expansion of the railway network. The Ashton Canal was purchased by the Manchester, Sheffield & Lincolnshire Railway in 1842, and was operated as a single concern together with the Peak Forest and Macclesfield canals. The Rochdale Canal Company resisted take-over bids from various railway companies initially but, in 1855, it leased the canal to a consortium of railway companies. The canal remained profitable into the twentieth century, but was in sharp decline by the end of the First World War. The final boat journey across the Pennines on the Rochdale Canal was made in 1937 and, in 1952, the canal was closed to navigation, apart from the short section between Castlefield and the Ashton Canal junction at Piccadilly (Hadfield and Biddle 1970).

4.4.3 Housing in Manchester

Attempts were made by the Manchester Police Commissioners to apply a rudimentary form of building regulations as early as 1792. However, with no way to enforce these regulations, they were largely ignored (Hylton 2003, 152). By the 1820s and 1830s, housing conditions deteriorated further, with poor sanitation, no form of water supply and poor-quality bricks and mortar (Nevell 2008, 136; Pearlman 1956, 3). At best, an open drain from an ashpit privy might have been installed down the middle of the street or court (Parkinson-Bailey 2000, 35). Eighteenth-century houses were compromised during this period by the infilling of areas between these dwellings with back-to-back and blind-back housing, and by the increasing use of these buildings, originally designed for occupation by one family, as tenements, that were occupied by two or more families. As a result, houses became increasingly overcrowded and cellars were used as separate dwellings (Nevell 2008, 152; Marr 1904, 34 and 60).

A description of the housing conditions during the early nineteenth century was given by Dr J Ferriar in the proceedings of the Board of Health in 1805:

“The number of damp and very ill-ventilated cellars inhabited in many parts of the town is a most extensive and prominent evil. It may be necessary to explain to gentlemen who have not visited such places, that they each consist of two rooms underground, the front apartment of which is used as a kitchen, and though frequently noxious by its dampness, and closeness, is greatly preferable to the back-room: the latter has only one small window, which, though on a level with the outer ground, is near the roof of the cellar, it is often patched with boards or paper, and in its best state, is so much covered with mud, as to admit very little either of air or light. In this cell, the beds of the whole family, sometimes consisting of seven or eight, are placed. The floor of this room is often unpaved: the beds are fixed on the damp earth. But the floor, even when paved, is always damp. In such places, where a candle is required, even at noon-day, to examine a patient, I have seen the sick without bedsteads, lying on rags; they can seldom afford straw. This deplorable state of misery becomes frequently the origin, and certainly supports in a great degree the progress, of infectious fevers.” (Board of Health 1805, 12-13).

Further acts were introduced during the nineteenth century in an attempt to improve living conditions in Manchester. The Manchester Police Act of 1844 stated that any new house should be provided with a toilet, with a door and covering, and all existing houses were to have one installed; significantly, this act also banned the building of new back-to-backs (Muthesius 1982, 126; Lloyd-Jones and Lewis 1993). The Public Health Act of 1848 further sought to improve conditions by giving ‘local authorities powers to supply water, to pave and clean streets, to arrange the collection of refuse and the whitewashing and purifying of houses’ (Parkinson-Bailey 2000, 40). Cellar dwellings also became illegal in 1853 through the Manchester New Streets Act, however, this took approximately three decades to take full effect, as many cellar dwellings remained occupied until 1872 (Hylton 2003, 154).

Two significant advances in housing legislation were introduced in the late 1860s. The first was the Manchester Waterworks and Improvement Act of 1867, which led to the appointment of a Medical Officer of Health for the town, the first of which was Dr John Leigh (Parkinson-Bailey 2000, 41). Nationally, this act was the first of its kind that

enabled houses unfit for habitation to be closed and demolished. Significantly, the 1867 act also specified the minimum requirements for room sizes and window areas in new dwellings, and also required that every new house had a yard at the rear. This act also required a minimum street width of 30ft (*ibid.*). This local act was then supplemented in 1868 by the passing of a national act. This was the Artisans' and Labourers' Dwelling Act, also known as the Torren's Act after its author, which focused on the improvement, maintenance, or demolition of pre-existing houses and also new-build houses (*ibid.*). To bring houses up to the required standard, landlords might create a through-dwelling by knocking doors through the party wall between a pair of back-to-backs. Pairs of back-to-backs or individual one-up one-downs might be removed altogether to create the space for yards for the remaining property (Roberts 1993, 22-3). In 1875, the Artisans' and Labourers' Dwellings Improvement Act was introduced to provide the mechanism of slum clearance, the first act of its kind (Pearlman 1956, 28). However, the Manchester authorities were initially resistant to this act, and it was not until 1890, with the amendment of this Act, that slum clearance and regeneration began in earnest (*op. cit.* 34).

4.4.4 Engineering in Manchester

The origins of mechanical engineering in Lancashire, and more specifically, Manchester can be traced back to the eighteenth century. Rapid and striking developments occurred in the early industrial revolution in the last quarter of the century. Lancashire soon came to manufacture not only cotton, but also cotton machinery, steam engines, boilers, machine tools, and, later, railway locomotives, iron bridges, gas-work plant and a vast range of other engineering products (Musson and Robinson 1960, 210). Machines or 'engines' had long been produced for grinding corn, fulling cloth, working blast furnaces, hammers and rollers in iron works. Powered by water and wind they were often made of wood and leather. Therefore, any one with proficiency in working wood or metal would be called upon to make machinery that would aid the setting up of millwork (Musson and Robinson 1960, 210). The mechanical inventions of Hargreaves, Arkwright, Crompton and Cartwright gave rise to an equally rapid development of mechanical engineering. Initially, this led to the evolution of a special class of millwrights. These millwrights were often well educated with a proficiency of practical knowledge in working a lathe, anvil or carpenter's bench, using an axe, hammer or plane, they could turn, bore or forge. This skill made them particularly important in the setting up of early mills, from whom sprang many of the early engineers of the city (Musson and Robinson 1960, 211). Alongside the emergence of the millwright was the proliferation of metal-working trades locally, specifically the black smith, who could work iron and early clock and watch makers. Men with these skills often found more profitable work in the building of textile machinery such as the hand loom, shuttle and reed maker. One of the earliest attempts at a power-driven weaving mill was in 1710 by a Mr Gartside, who attempted to work several swivel looms with a capital water mill on the River Medlock (Musson and Robinson 1960, 213). The development and expansion of these trades can be traced through the business directories of the time. Elizabeth Raffald's directories of Manchester and Salford from 1771, 1772 and 1778 show that, early on in the decade, there was only one iron foundry and one millwright but by 1778 there were seven ironmongers, six braziers or brass foundry's, twelve black and white smiths, as many clock and watch makers, tin plate and wire workers as well as a huge expansion in the

number of skilled woodworkers (Raffald, 1781). By the turn of the century, the expansion of the cotton industry had given rise to workers such as Adam Harrison who listed himself as a cotton engine maker, and Samuel Smith as one of the first engine makers (Musson and Robinson 1960, 214).

Scholes' Manchester and Salford Directory of 1797 (Scholes, 1797) lists for the first time the occupation of engineer Thomas Knight of 2 Back Lane, Ancoats. The directory also shows an increase of listings for those specialising in the manufacture of machines, specifically for the textile industry. Occupations such as water spindle maker and cutter of machine wheel appear, and there is also an increase of iron founders and machine makers (Musson and Robinson 1960, 215). There is some evidence to suggest that although most of the engineers brought in to build a mill would be dismissed once it was finished, some were kept on to maintain and add to the machinery (Musson and Robinson 1960, 217). Once mills had been established the enterprising engineers then began to set up their own shops to sell machines complete to the mills, the first of these were probably carding machines, but inevitably the range of machines grew. John Kennedy, one of the leading cotton machine makers and spinners, confirms this in a paper he read to the Manchester Literary and Philosophical Society in 1815:

"After the mills had been a few years established, some thrifty part of the men who had been employed in them began to study their own interest. They found the business lucrative and resolved to have a share in it. Some small shops were established for the construction of such machinery as could be constructed out of the mills, and I believe carding engines were the first things of the kind so undertaken; afterwards other parts of the apparatus began to appear in the shops, such as the jenny ... and afterwards the mule ... Machinery began at this time to be improved, workshops spread themselves over the country..." (Kennedy 1849, 5-25).

Textile engineering was developing rapidly at the start of the nineteenth century in Manchester. It is evident that the millwright along with the established metal-working trades of Lancashire especially clockmaking contributed greatly to this development. The lathes and wheel cutting engines for the making of large clocks could easily be applied to the manufacturing of textile machinery (Musson and Robinson 1960, 221). Early mill owners were also machine makers. The ability to make the machines required to open a mill was a huge part of the initial outlay financially. Machine makers capitalised on this. The obvious example being the famous Scottish partnerships of McConnel and Kennedy and the Murray brothers (see 4.4.2).

To reduce the reliance on water and water wheels as the supply was woefully low in Ancoats mill owners began to look for alternative sources of energy away from Shooters Brook and the River Medlock. This led to the introduction of the first steam engines and the establishment of such engineering firms as Bateman and Sherratt, Boulton and Watt and Wrigley (Musson and Robinson 1960, 224). Engineering then, was not restricted just to the development of mill machinery. By 1795 there were six foundries in Manchester making all manner of goods from pots and pans, to stoves, anvils, hammers, cog and water wheels, screws chains regulators and pipes. One of these foundries was Bassett and Smith, Shooters-Brook Foundry, Ancoats Lane. William Fairbairn started his engineering career renewing horizontal cross shafts at Murrays Mills in the early nineteenth century (Rose *et al* 2011, 25). By 1850 the firm of

Fairbairn & Co occupied several premises in the area between the Rochdale and Ashton Canals, with main works, machine works and offices. Other notable engineering firms that emerged at this time include Peel and Williams Soho Foundry situated between the canal and Pollard street that specialised in the manufacture of components for steam engines and boilers later diversifying into gear wheels. Other smaller businesses set up near the mills and foundry's, such as iron stores, screw and bolt works, Samuel Bowler's foundry and John Hetherington's Vulcan works (Musson and Robinson 1960, 229).

This explosion in engineering at the end of the eighteenth century and on into the nineteenth century, fuelled by the ever-expanding textile industry, was unique. In part it can be attributed to the unusual coming together of various trades, that of millwright, blacksmith and clockmaker in order to solve initially a set of very specific problems around textile manufacture. This in turn saw the emergence of the first engineers skilled eventually in the making of many kinds of machines.

4.5 Development of the Site

The development of the Site may be traced reasonably well from the sequence of available historic mapping. The earliest reliable published map that shows the study area at a useful scale is Green's map of 1787-1794 (Plate 2; Fig. 3). This map shows the proposed streets in Ancoats laid out in a grid pattern, creating series of regular plots, with development apparently focused on the Great Ancoats Street and Newton Lane (Oldham Road) area. Some of the larger streets were named after the original landowning families (e.g. George and Henry Cornwall Legh) (Rose *et al* 2011, 8).

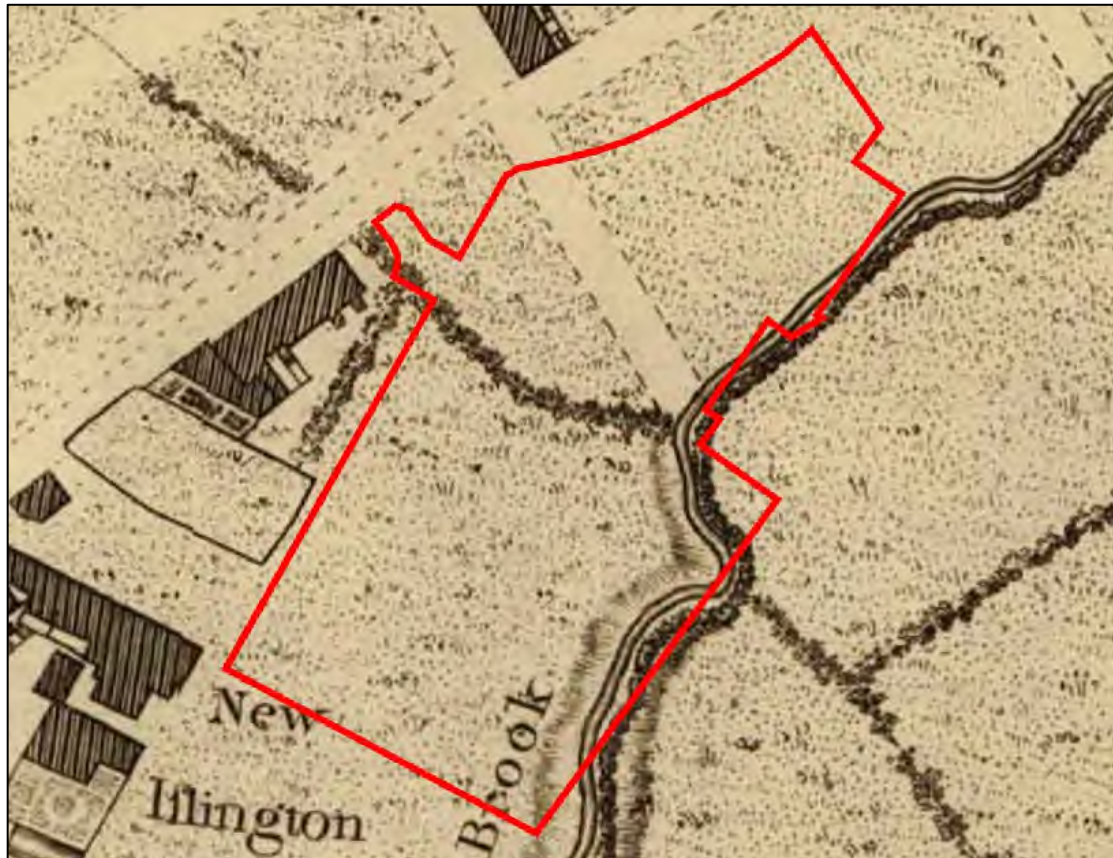


Plate 2: Site boundary superimposed onto Green's map of 1787-1794

Green's survey indicates the Site was still a field in 1794, (Plate 2; Fig. 3) bisected on its eastern boundary by Shooters Brook, and east to west by a field boundary. There is an indication of the rapid expansion of Ancoats in the proposed extension to Prussia street seen as two dotted lines in the northern half of the map.

Swire's map of 1824 (Plate 3; Fig. 4) shows the arrival of the Rochdale Canal on the northern boundary of the Site. The area around the edge of the Site had seen some development since the turn of the eighteenth century, specifically the New Islington Mill on the southern boundary. Oxford Archaeology North's document 'New Islington Mill, Ancoats, Manchester' summarises the role of Shooters Brook on the Site in relation to the New Islington Mill (Healey and Miller *et al* 2004).

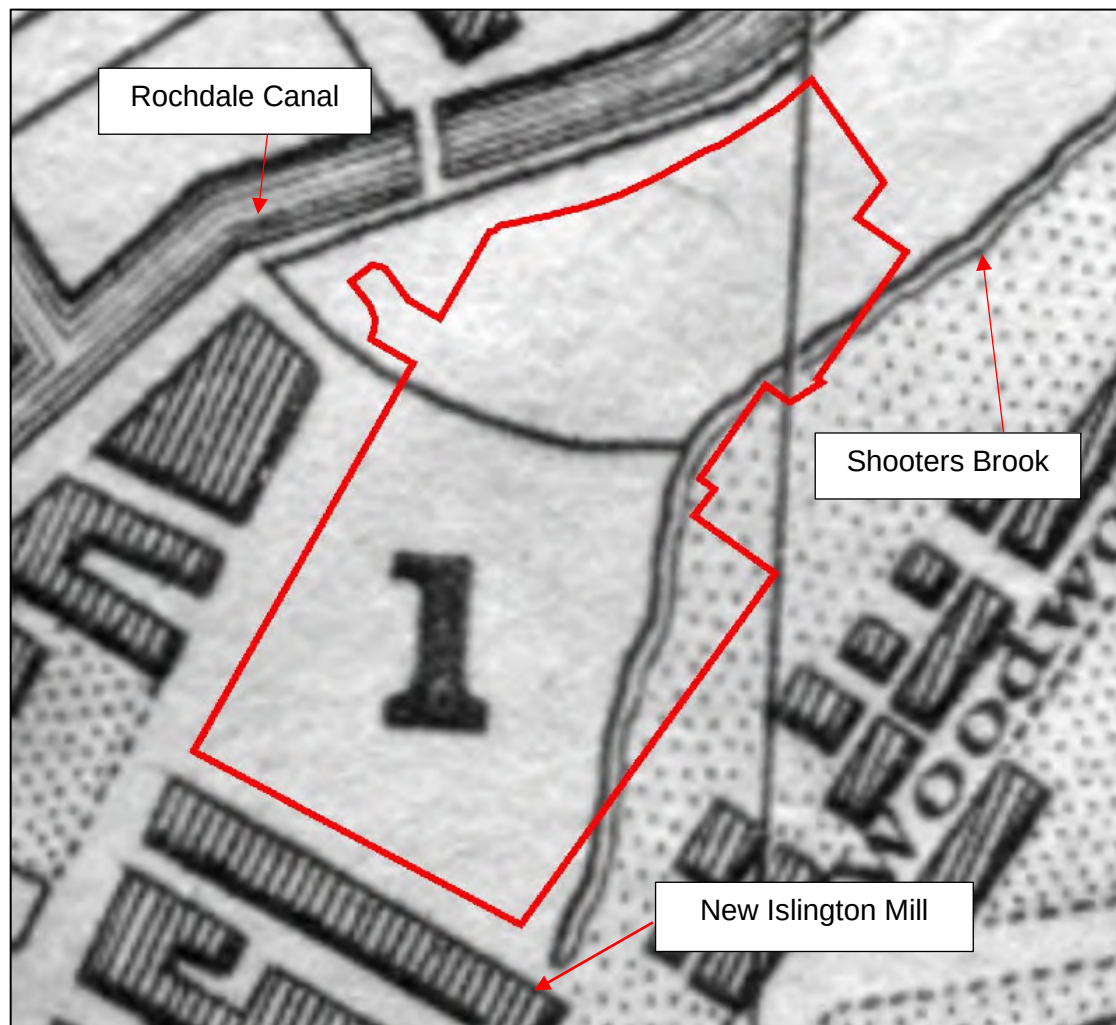


Plate 3: Site boundary superimposed onto Swire's map of 1824

Several water-powered mills had, however, already been erected along Shooters Brook, situated to the south of Union (now Redhill) Street. The line of the Rochdale Canal ran between Shooters Brook and the new focus of development, offering the potential of cheap and reliable transport for goods and materials. The completion of the canal in 1804 coincided broadly with the introduction of efficient steam engines capable of producing rotative power. A small number of enterprising firms seized the opportunity presented by this combination of factors, resulting in the creation of a new breed of mill building in Ancoats.

New Islington Mill appears to have been one of the earliest steam-powered mills to have been established within Ancoats, although it has been suggested that it originated as a water-powered spinning factory that was in operation by the late 1780s (Nevell 2003, 43). This suggestion was based on a survey of Arkwright patented water-frame mills in Britain, undertaken by Patrick Colquhoun in 1788. An assessment of this survey (Chapman 1981) concluded that five of the mills were located in Manchester, and whilst New Islington Mill is not identified specifically, it has been proposed as a candidate (Healey and Miller *et al*, 2004).

New Islington Mill dug a small reservoir fed by Shooters Brook. This was the first of many changes to the course of the brook. The site itself though remained undeveloped, the field boundary seen in Greens Map of 1787 – 1794, (Plate 3; Fig. 3) is still present. The planned extension to Prussia street abandoned by the arrival of the Rochdale Canal.

The Bancks & Co map of 1831 (Plate 4; Fig. 5) details the development that continued around the edge of the Site since Swire's map of seven years previous (Plate 3; Fig. 4). Pott Street ran along the western side of the Site, Boons Row bordered the southern side. Dixon Street and Lawton Street ended at Shooters Brook on the eastern side of the brook. Running parallel to the brook a small new street of back-to-back housing called Woldens Strand was built. The small reservoir built to provide water for New Islington Mill seen on Bancks & Co's map of 1831 (Plate 4; Fig. 5) was superseded and on the Ordnance Survey Town Plan of 1851 (Plate 5; Fig. 6) the brook was the most significant geographical feature on the Site at this time.



Plate 4: Site boundary superimposed onto Bancks & Co.'s map of 1831

The documentary evidence provides an astonishing insight into the changing demographic composition of the district's inhabitants, during the process of industrialisation. In the late eighteenth century, the area remained semi-rural and sparsely populated with its residents being a mixture of businessmen, trades people and even gentlemen. By the 1820s there had been a huge demographic shift. This can even be traced in the rate books for the area, such as Bengal Street and Gerrard's Court, which show a rise in the number of Irish surnames by the 1820s. This trend is corroborated by contemporary articles. The reporter of an article published in *The Times* in 1819, stated that Ancoats had been 'created by the success of the cotton trade, and swarms with inhabitants, who all share its vicissitudes. It is occupied chiefly by spinners, weavers, and Irish of the lowest description, and may be called the St Giles' of Manchester' (*The Times* 24 August 1819).

Another article titled 'Accident and Offences', published in the *Manchester Mercury* in 1830, reported the violent behaviour of the Irish. The story of an English cart driver who was attacked by a group of Irishmen on Poland Street following a dispute about the donkey. The report stated that the attack "serves to show the almost murderous spirit of violence that exists in the breast of some of the lower order of Irish". The Irishman with whom the driver had had the dispute had summoned a "posse of Irishmen, some of them armed with sticks" from the Death of Nelson public house, who then struck the driver several times (*Manchester Mercury* 05 January 1830).



Plate 5: Site boundary superimposed onto the Ordnance Survey Town Plan of 1851

The Irish migration to Britain increased yet further during the 1830s and '40s, accelerated by those fleeing the potato famine between 1845-9. This trend was

particularly evident in the census returns for 1861 with regard to properties contained within the site, which lists the Irish family of Newall living in 2, Woldens Strand (Table 3).

First name(s)	Last name	Relationship	Marital status	Age	Birth year	Occupation	Birth place
Robert	Newall	Head	Married	50	1811	Ginger Beer Manufacturer	Ireland
Jane	Newall	Wife	Married	45	1816	-	Ireland
Eliza	Newall	Daughter	-	0	1861	-	Manchester Lancashire, England

Table 3: The Newall household recorded as living in 2 Woldens Street Strand on the 1861 census return

The overcrowding and slum conditions experienced by many of the workers in Ancoats is reflected further in the 1861 census by the family living at 1, Woldens Strand (Table 4).

First name(s)	Last name	Relationship	Marital status	Age	Birth year	Occupation	Birth place
Daniel	Marsh	Head	Married	45	1816	Coal Agent	Lancashire, England
Margaret	Marsh	Wife	Married	37	1824	-	Lancashire, England
Eliza E	Marsh	Daughter	-	17	1844	Cotton Carder	Lancashire, England
Ann E	Marsh	Daughter	-	14	1847	Cotton Carder	Lancashire, England
Margaret G	Marsh	Daughter	-	13	1848	Scholar	Manchester, Lancashire, England
Henry N	Marsh	Son	-	7	1854	Scholar	Manchester, Lancashire, England
Francis C	Marsh	Daughter	-	10	1851	Scholar	Manchester, Lancashire, England
Thomas E	Marsh	Son	-	2	1859	-	Manchester, Lancashire, England
Sarah E	Marsh	Daughter	-	0	1861	-	Manchester, Lancashire, England

Table 4: The Marsh household recorded as living in 2 Woldens Street Strand on the 1861 census return

The Marsh family had nine members two of whom are employed in the textile trade. At 1, Lawton street lived six occupants of the Thornhill family. The fourteen-year old son of the Thornhill family was working as an iron turner, and the seventeen-year old

daughter was a silk weaver. At 1 Dixon Street the Ashcroft household had four occupants including one lodger.

The Ordnance Survey Town Plan of 1891 (Plate 6; Fig. 7) shows, for the first time, five houses in the south western corner of the site fronting on to Pott Street. In the south eastern corner a series of buildings were built, its not clear that they are residential as no record could be found in the census and no street name is listed. It may well be they were an extension of the New Islington Mill, or are part of the new industrial buildings on the Site. The major change to the Site by 1891 was the arrival of the Titanic Steel Works.

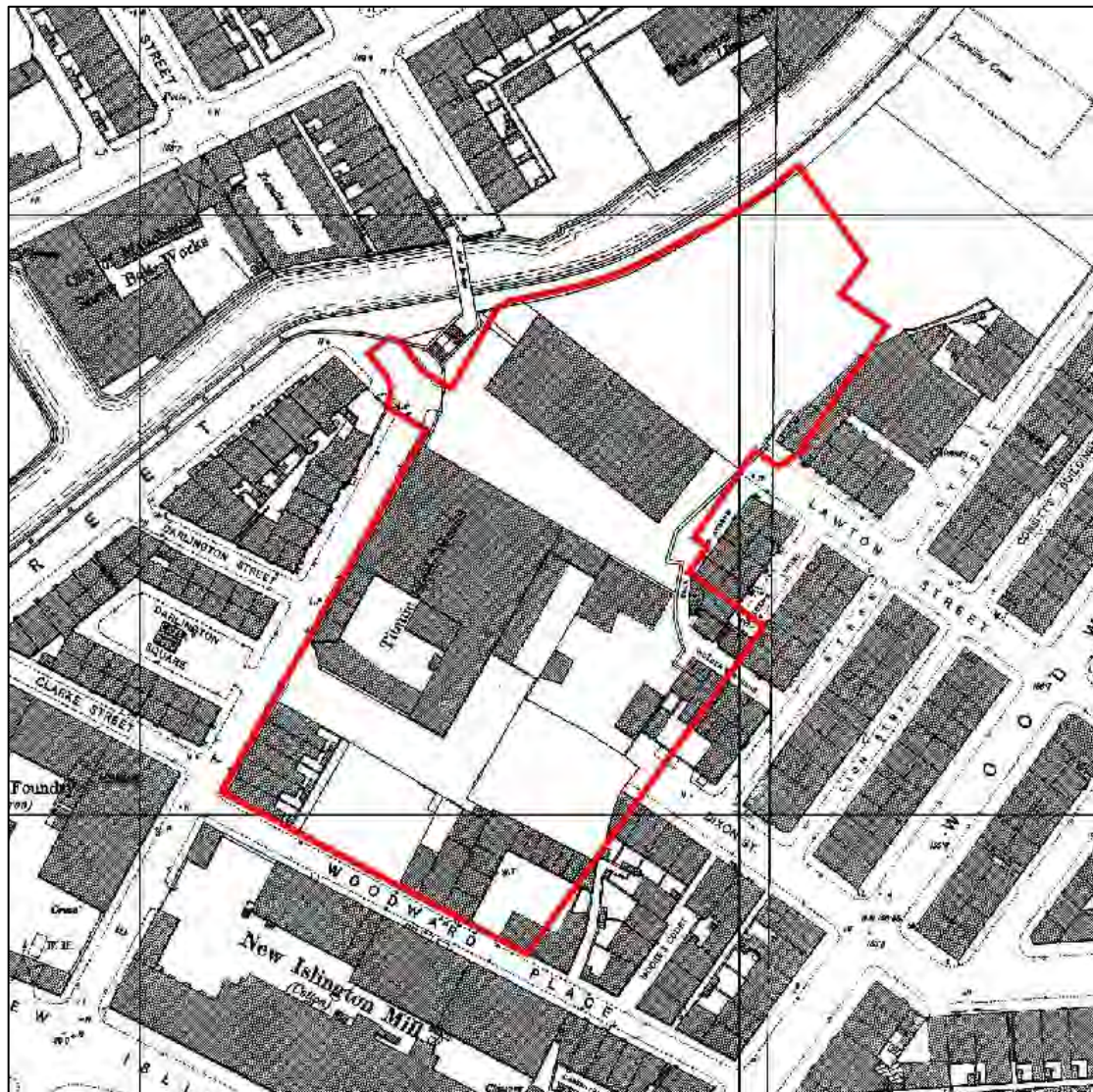


Plate 6: Site boundary superimposed onto the Ordnance Survey Town Plan of 1891

Shooters Brook had also changed in its character by 1891. In the Ordnance Survey Town Plan of 1851, (Plate 5; Fig. 6) the brook was still one of the most dominant geographic features of the Site. By 1891 the brook appeared at the rear of the housing on Back Woldens Strand, but other than that, seems to have been fully culverted underground (Plate 6; Fig. 7).

The 1891 census returns give a deeper insight into the live and occupations of the families living at 90, 92, 94, 96 and 98 Pott Street, located in the south-east corner of

the Site. Like those living on Back Woldens Strand, Lawton Street and at the end of Dixon street the demographic seems to be a mix of Irish and locally born residents who were employed largely in the expanding textile industry of Ancoats. For example, at number 98, the Hanagan household was made up of first and second generation Irish immigrants and in order to make ends meet they took in four lodgers, two were employed in the textile industry, and a further two in glass works (Table 5). Manchester and Salford had 13 glass manufacturers in 1895 (Slaters 1895, 119), which was an expanding secondary industry of the area. At number 90, the Littler household had eight occupants, six of whom were children, the two eldest at fifteen and seventeen were working as cloth cap maker and bonnet trimmer.

First name(s)	Last name	Relationship	Marital status	Age	Birth year	Occupation	Birth place
Bridget	Hanagan	Head	Widow	62	1829	-	Ireland
Sarah	Hanagan	Daughter	Single	31	1860	Fore Woman Glass Works	Manchester, Lancashire, England
James	Hanagan	Son	Single	14	1877	Messenger	Manchester, Lancashire, England
Stephen	Redmond	Lodger	Widower	52	1839	Cabinet Maker	Ireland
George	Durge	Lodger	Married	31	1860	Packer Glass Works	Kidderminster, Worcestershire, England
Margaret	Ward	Lodger	Single	26	1865	Jack Tenter Cotton Mill	Liverpool, Lancashire, England
John	Charchill	Lodger	Single	30	1861	Brake Fitter Railway Co	Ireland

Table 5: The Hanagan household recorded as living in 98 Pott Street on the 1891 census return

The houses shown on the Ordnance Survey Town Plan of 1891, (Plate 6; Fig. 7) also show whether or not they have steps going up to the front door. This is a strong indication as to the presence of cellars. Cellars were often sublet and in Ancoats represented some of the worst type of housing available to the poorest residents, often refugees from the Irish potato famine of 1845 -49. The houses located on the Site do not appear to have any cellars with the exception of the property at the end of Lawton Street and number 1 Woldens Strand. The census returns of 1861 and 1891 do not indicate that these houses had separate households living in cellars, or that they had lodgers another indication of cellar occupation. This does not mean that cellars were not occupied only that census material does not evidence it.

Such enclaves of low-quality housing, with long-established Irish residents, were probably the first port of call for migrants arriving with little-to-no money. This contributed to what can only be described as 'ghettoization'. This phenomenon has been explored in some depth in a study by Lee Gregory, who analysed "the heads of households, the occupational structure and occupancy rates" within a central swathe of Ancoats (Rose *et al*, 2011, 33). Its findings revealed that initially, high numbers of Irish-born inhabitants were living within closed, "ghetto-like" communities, chiefly in back-to-back houses and cellar dwellings (*ibid*).

Mr Samuel John Hackney was one of the two founding partners of the Titanic Steel Works (Plate 7). He started life as a clerk, but in 1863 set himself up in an oil lamp business on China Lane just outside Ancoats. It was described in the Slater's Directory of 1876 as: "paraffin lamp manufacturers, wholesale and export, and dealer in all kinds of lamps, fittings, oils etc." His business continued to grow and, in about 1879, he moved to larger premises in the city on the corner of Rochdale Road and Swan Street.



Plate 7: Photographic portrait of Mr. Samuel John Hackney

By 1885 Mr Samuel John Hackney had met Mr Joseph Elton Bott, together they formed a partnership, and the Titanic Steel Works was established on the Site. This was a bold move for Samuel who had little experience in this industry. However, his partner Joseph was an extraordinary character. He had already tried unsuccessfully to set up a steel foundry in Philadelphia, USA for the Titanic Steel Casting Company, the similar name a coincidence. By 1884 he was back in England with a new idea for a type of open-hearth furnace, which was a compromise between 'the Bessamer and crucible method'. This process used unbaked green sand moulds and received a patent in 1886. New furnaces were installed on the Site at the end of 1886. The company started well, with adverts appearing in engineering magazines proclaiming the virtues of their innovative process. In 1887 they reserved a stand at the Royal Jubilee Exhibition, Manchester to promote their castings.

The Royal Jubilee Exhibition was probably the last investment in the partnership, as the company went into receivership at the end of 1887. After the partnership was dissolved, Samuel continued the business on his own. Possibly due to the loss of his innovative and entrepreneurial founding partner the foundry went into liquidation in October 1893. Samuel returned to his oil lamp enterprise and at the start of the twentieth century started to branch out into incandescent light fittings. Despite not making his fortune Samuel remained in business for many years. Joseph was not so lucky, the thirty patents he had to his name did not stave off bankruptcy and he died aged only 47 in 1908.

The Titanic Steel Works is shown on the the map of 1891 (Plate 8; Fig. 7). It occupied the northern part of the site and likely fronted onto Pott Street. One main block with a courtyard has been established with several additional buildings constructed around the site. The large building that bisects the site east to west in the top half of the site purpose is not clear, but was undoubtedly part of the foundry, and could well be the site of the new furnaces installed in 1886. The map (Plate 8) also indicates that the Titanic Steel Mill was utilising water from the Rochdale Canal for use in the manufacturing process.

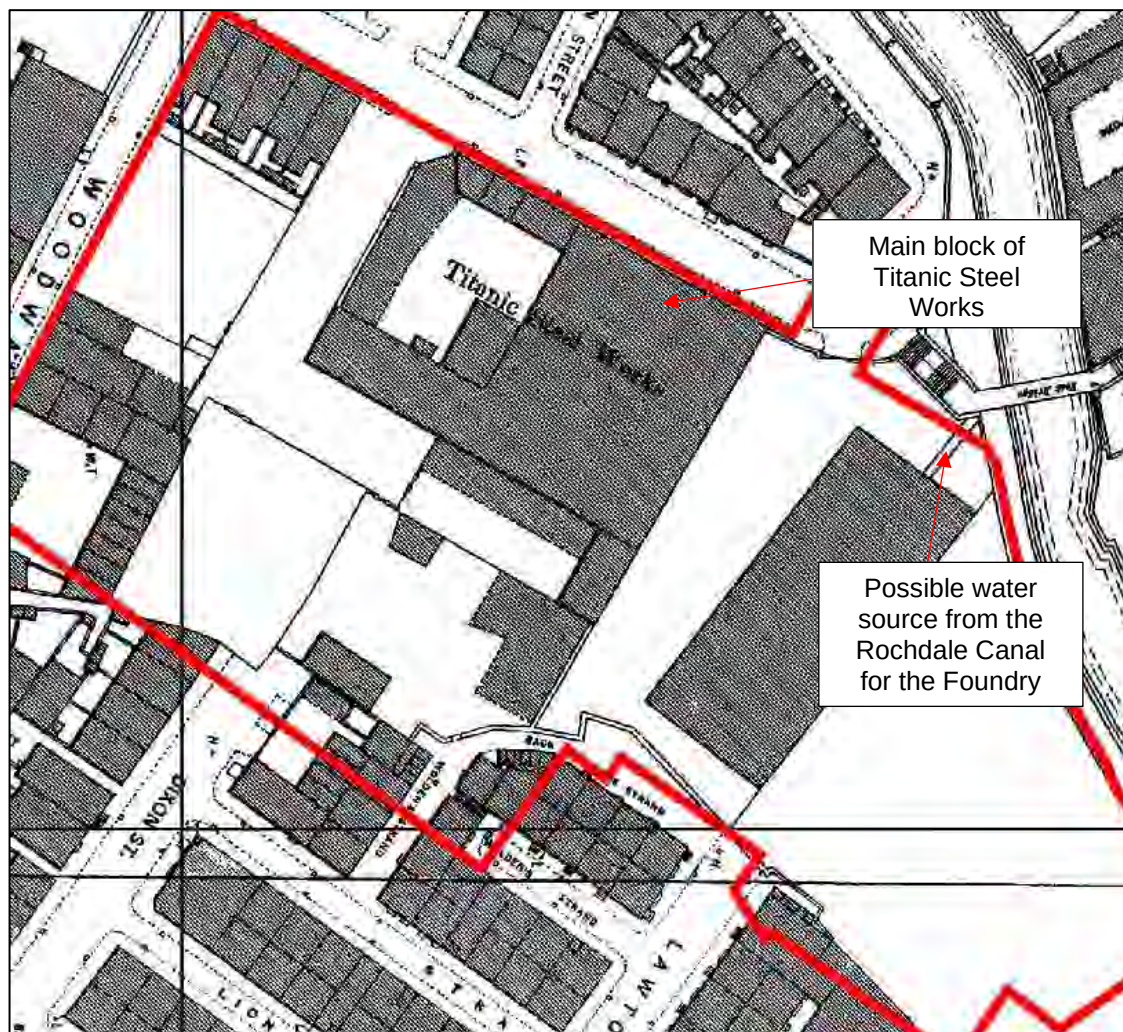


Plate 8: 1891 Town Plan detailing the Titanic Steel Works

By 1908, Ducie Saw Mills, located to the north of the Site, had expanded southwards. The timber stores of the saw mills were located within the Site boundary (Plate 9; Fig 8). The 1908 Ordnance survey map also shows the Titanic Steel Works had been replaced by St Vincent's home. Buildings of cooperation and philanthropy (Pevsner, 2004, 77) were a feature of the new industrialised city of Manchester and Ancoats. One of the consequences of industrialisation and rapid urbanisation coupled with cyclical trade depressions was a new class of urban poor. Provision of facilities such as parks, public baths, hospitals and so on earlier in the nineteenth century were followed later by buildings of a more specialist function, in the heart of the afflicted areas. In many cases they replaced pre-existing facilities in reused buildings. Such philanthropic buildings can be found in various locations, the last group survives in central Manchester and its industrial suburb of Ancoats. (Pevsner 2004, 78).

St Vincent's Home was one such philanthropic building. The earliest reference to the St Vincent's Home located was a newspaper article in the *Manchester Evening News* dated 17th April 1899. It records an opening of a sale of work by the Lord Mayor a Mr W. H. Vaudrey. A Mr. Armitage introduces the Lord Mayor by thanking the Sisters of Mercy (although in fact they were the Sisters of Charity) for their planned expansion into bigger premises on Vincent Street and the alterations they undertook to convert it to a Home and Night Shelter. The Lord Mayor refers to the 'poor and unfortunate women' that the home will accommodate saying such establishments are a necessity in a city as big as Manchester.

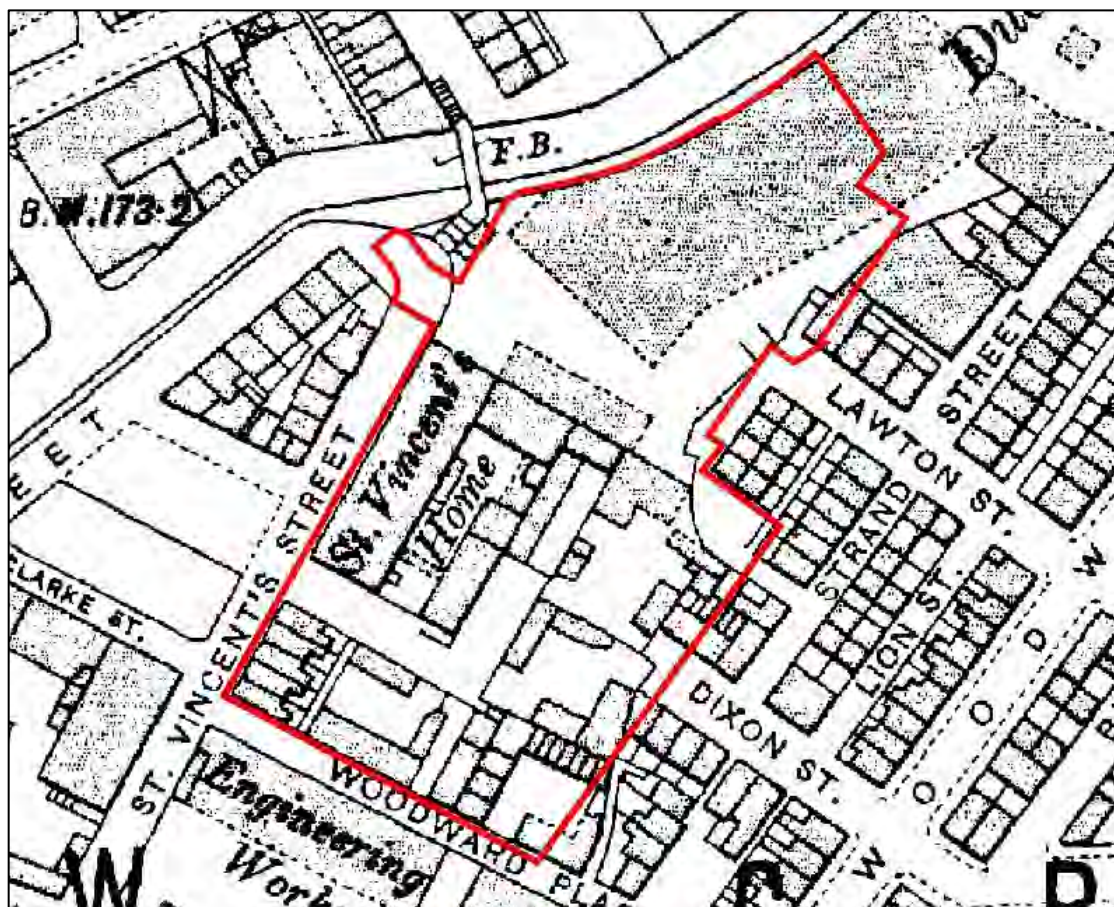


Plate 9: Site boundary superimposed onto the Ordnance Survey map of 1908

A plan of St Vincent's Home is held at the Manchester Archives. The entry in the archive for the plan, dated 1902, revealed that The Sisters Of Charity were the owners of the site, and that the plans were for a Laundry. The architect employed to design the home was a Mr. Oswald Charles Hill. Oswald had an architecture practice in Albert Square Manchester, and unsurprisingly for the period favoured a gothic revival style. However, it is unlikely that the St Vincent's Home was anything other than utilitarian. This was one of several commissions he undertook for the Catholic Church, the Bishop of Salford seems to have favoured his practice.

The census return for 1901 gives further insight into the how the home was run and operated. A Catherine Holland from Ireland is listed as the Superioress, her occupation a 'Sister of Charity', she had a further six members of the community or Sisters to assist her in the care of 21 residents. Of those residents, 15 are listed as 'Servant', all of those with this occupation are employed as machinists. There are two residents described as 'inmates' and a further four are described as 'inmates of the night shelter'. The inmates of the night shelter are all described as being 'Servants out of place'. The reason for their unemployment is unknown.

As established the home was for 'fallen women' a Magdalen laundry that provided refuge for the destitute. In 1901 little distinction was made in the eyes of many between single mothers and prostitutes. The census entry for St Vincent's Home of 1901 (Plate 10 and Plate 11), separates the occupations of those living in the home into Superioress, members of the community, servant and inmate.

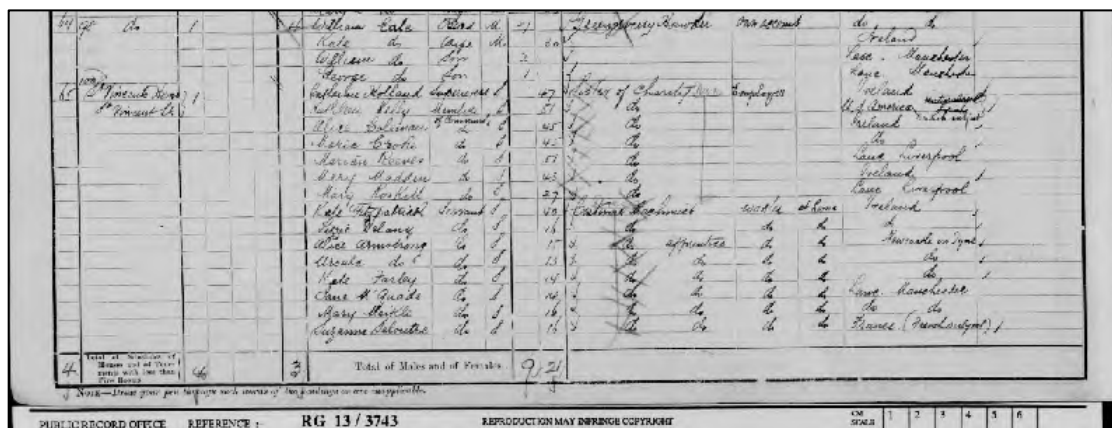


Plate 10: 1901 Census entry for St Vincent's Home at 100 St Vincent Street

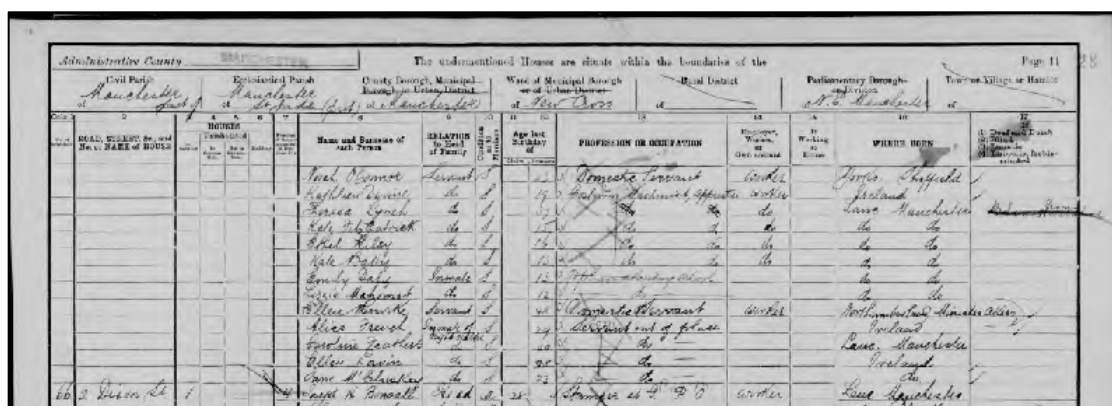


Plate 11: 1901 Census entry for St Vincent's Home at 100 St Vincent Street

The Ordnance Survey map of 1908 (Plate 11; Fig 8), as well as showing the St Vincent Home, also shows how Shooters Brook was completely culverted. The map shows that there was no longer any above-ground record of the brook on the Site. The houses on the corner of Woldens Back Strand seem to have been demolished, but the house at the end of Lawton Street and the houses at the end of Dixon Street were still extant. Numbers 90, 92, 94, 96 and 98 Pott Street on the Ordnance survey map of 1891 (Plate 8; Fig. 7), had become numbers 90, 92, 94, 96, and 98 St Vincent Street. The renaming of the street corresponds to the opening of the Sisters Of Charity Home. The New Islington Mill located on the southern boundary of the Site on the Town Plan of 1891 (Plate 8; Fig. 7) was no longer present and was replaced by engineering works.

The 1901 census is informative regarding the residents of this corner of the Site. At Number 98, the Hanagan household had moved on to be replaced by the Cale household. At number 96 the Foster household was still in residence. At number 94 the Willsher household had been replaced by the Collins and at number 92, the Dickins family was still resident and number 90 on the corner was uninhabited.

The 1911 census lists the St Vincent's Home as an institution and gives a clearer picture than previous census data as to the occupation of residents. It was still a Magdalen Laundry and Catherine Holland was still in place as the 'Head Sister', alongside a further six sisters to help her in the care of 32 inmates. The census return shows that the inmates (listed as such) held positions of responsibility, Head Laundress, and Matron of the night shelter. There were also two nursery maids for the creche or day nursery. There was a cook and fourteen of the inmates work in the laundry, five were domestic servants waiting employment, four were servants of the institution, three worked in local mills and one 14-year-old was still at school. In Ireland it is now well documented that the inmates in such institutions were forced labour, those working in the laundry never received any wages (*Irish Times*, 2021), it is likely that this occurred at St Vincent's, and it is clear from the presence of nursery nurses that mothers were having babies within the walls of the institution. The babies if present are not listed on the census return.

The houses located within the south-west corner of the Site were still present and the occupants had all changed since the 1901 census. Number 90 was occupied again at this time by the Tapping family, the head of the household, Thomas was a horse-keeper and he had a wife and four children as well as boarder. At number 92 the Leather household had three residents, the head of household, John was a blacksmith. Mr and Mrs McGowan lived at number 94. Thomas was an upholsterer. At number 96 the Mather household had five occupants and the head of the household, Charles was an accountant. Mr and Mrs Stubbs lived at number 98; Charles Stubbs was a Joiner's labourer. Of all the residents on this corner of St Vincent Street only one was born in Ireland. Only the heads of the households worked, and all the children were in school. This represents the shifting demographic in Ancoats at the time as occupations expanded beyond the textile work into other industries.

The Ordnance Survey map of 1922 (Plate 12; Fig 9) shows that little changed on the Site from the 1908 Ordnance Survey map, (Plate 9; Fig 8). The St Vincent's Home was still present as was number 90 to 98 St Vincent Street. The buildings located in the south-eastern corner of the Site remained the same. The lack of census data indicates that they were probably industrial and/or related to the operation of the home.



Plate 12: Site boundary superimposed onto the ordnance survey map of 1922

In 1922, Number 1 Lawton Street was still extant as were the two properties at the end of Dixon Street. Numbers 90, 92, 94, 96, 98, St Vincent's Street were also still present at the time (Plate 12; Fig 9).

By 1937 Associated Technical Manufacturers had moved onto the St Vincent's Home site. When the home closed is not clear but changing attitudes to unwed mothers in England probably contributed as would stricter employment laws. The Trade Board Acts of 1909 had encouraged fair wage agreements, these were backed up after World War I by the Ministry of Reconstruction. At the same time the Representation of the People Act 1918 gave universal suffrage to all women over the age of 28 in England. The Associated Technical Manufacturers were shown as Vincent Wire Works and Vincent Works (Electrical) on the National Grid Map of 1948 (Plate 13; Fig 10). The footprint of the new industrial premises was smaller than that of St Vincent's Home. The buildings that could not be identified in the south-eastern corner of the Site appear to have been demolished. Part of number 1 Lawton Street, and the properties at the end of Dixon Street first seen on the 1851 Town Plan were still present, as were numbers 90, 92, 94, 96, and 98 St Vincent's Street which were first seen on the Town Plan of 1891.

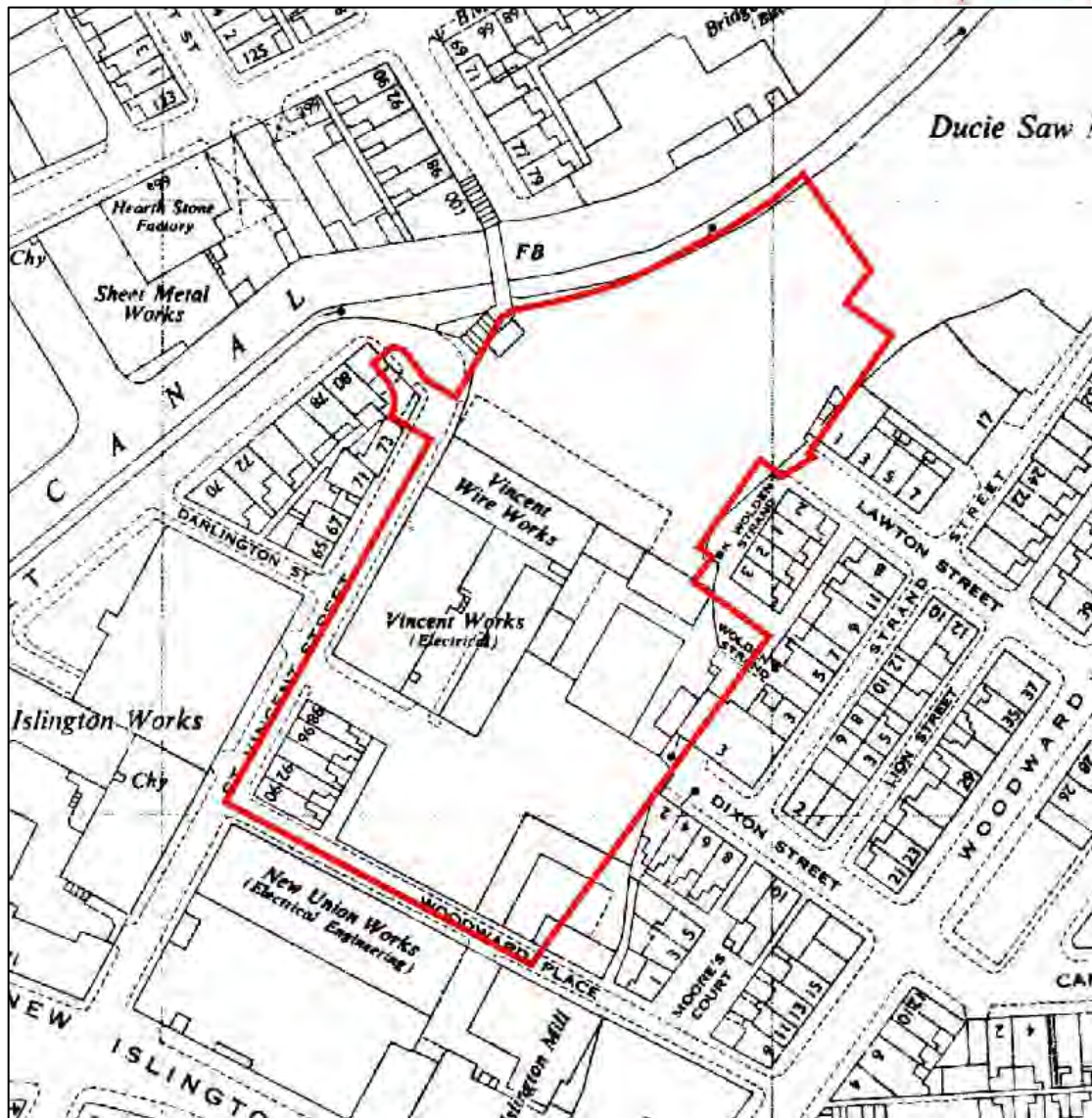


Plate 13: Site boundary superimposed onto the National Grid Map of 1948

In 1954, Associated Technical Manufacturers changed their name to Permanoid Ltd, they continued to expand eventually signing a lease on a new property in Hulme in 1975. They vacated the Site not long after.

At some point between Permanoid Ltd changing their name in 1954 and vacating the Site in 1975, the back-to-back and workers' housing located within and surrounding the Site was demolished. The housing on St Vincent's Street was still present in 1953 (Plate 15; Fig 11). The houses were demolished between 1953 and 1968 (Plate 16). Lawton Street was renamed Kingham Drive and a photograph (Plate 14) shows that new development including a block of flats at the western end of Kingham Drive, within the Site.



Plate 14: Kingham Drive 1967

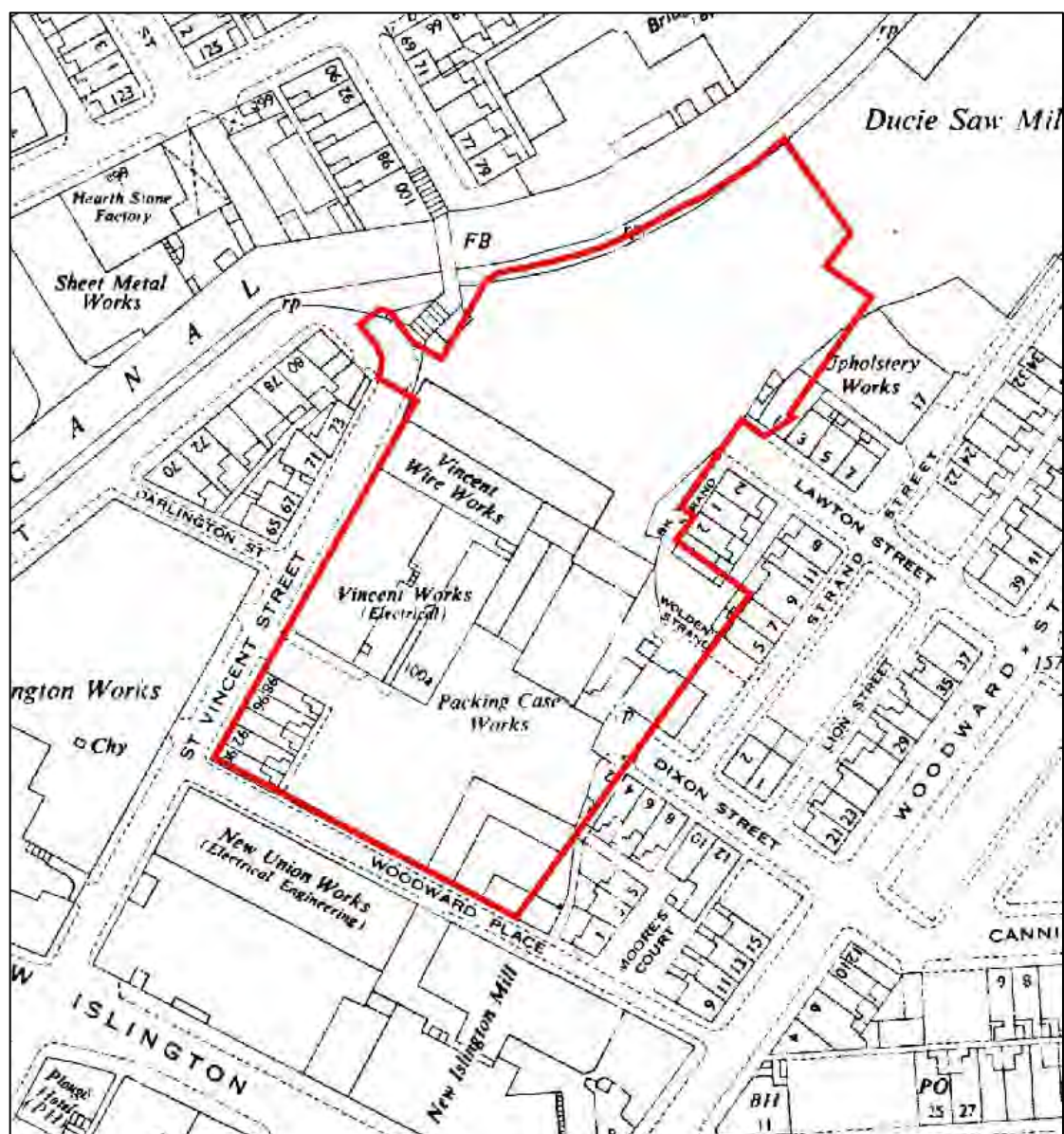


Plate 15: Site boundary superimposed onto the National Grid Map of 1953



Plate 16: Site boundary superimposed onto the National Grid Map of 1968

At some time between 1972, when this photograph of the footbridge (Plate 17) was taken, and now, the footbridge was demolished, and replaced with another footbridge that now exits onto Stephen Hunt Street. The original footbridge that exited on to Rodney Street had been there since the Rochdale Canal was built and can be seen on Swire's map of 1824.



Plate 17: Photograph showing the Site in part the foreground and Rodney Street footbridge over the Rochdale Canal in background (1972).

5. Gazetteer

The following gazetteer entries summarise the sites of potential archaeological interest within the Site (Figs 12 and 13). The identification of these non-designated heritage assets is drawn primarily from the historic map regression analysis

Gazetteer Entry 01

Site Name	Titanic Steel Works (site of)
Designation	No designation
HER number	-
Site Type	Industrial Site
Period	Nineteenth century
NGR	SJ 385350 398730
Source	OS mapping
Description	Titanic Steel Mill occupied premises directly fronting on to what was Pott Street (now St Vincent Street). The works was established by Hackney & Bott.
Assessment	Remains of the mill may survive within the Site boundary.

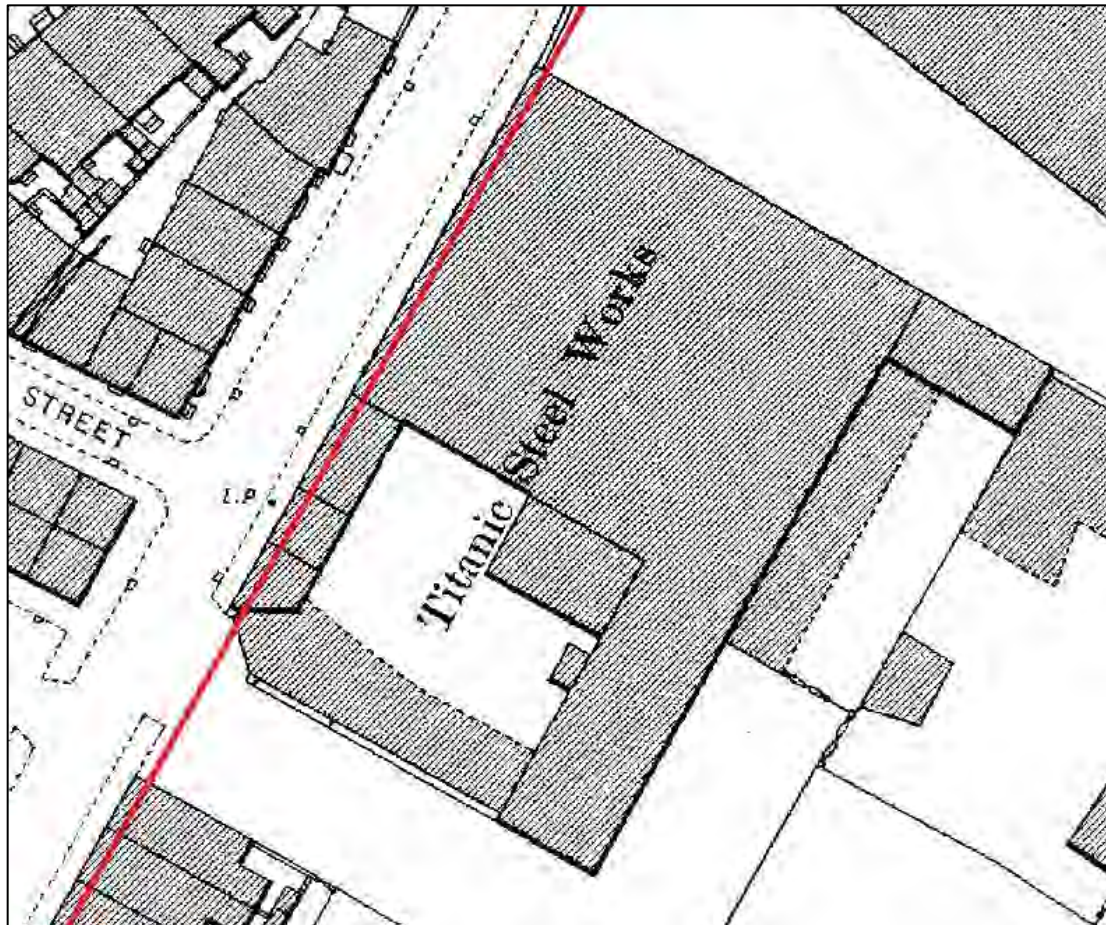


Plate 18: Titanic Steel Works shown on the 1891 OS map

Gazetteer Entry 02

Site Name	St Vincent's Home (site of)
Designation	No designation
HER number	-
Site Type	Institution
Period	Nineteenth century
NGR	SJ 385350 398730
Source	OS mapping, census return data
Description	St Vincent's Home was a Magdalen Laundry run by the Sisters of Charity. The home dates to the turn of the twentieth century and was repurposed in the mid-1930s.
Assessment	Archaeological remains of the institution may survive in-situ within the Site boundary.

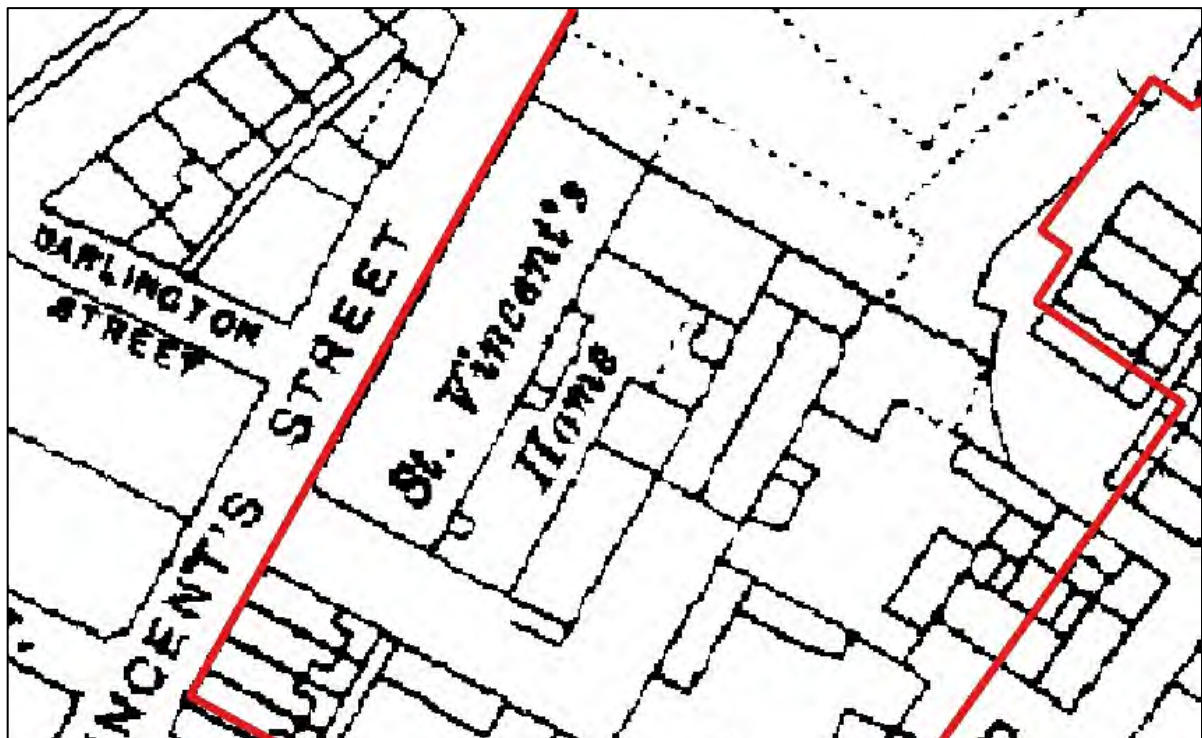


Plate 19: St Vincent's Home shown on the 1922 OS map

Gazetteer Entry 03

Site Name	Culverted Shooters Brook
Designation	Non-designated heritage asset
HER number	-
Site Type	Culvert
Period	Nineteenth century
NGR	SJ 385370 398740 (runs through Site)
Source	OS mapping
Description	Shooters Brook was used as a source of power for the mills that sprang up along its banks in the early nineteenth century. Cartographic evidence suggests it was almost completely culverted by 1891.
Assessment	Remains of the culvert may survive within the Site boundary.

Gazetteer Entry 04

Site Name	Ducie Saw Mills (site of)
Designation	No designation
HER number	-
Site Type	Saw mill and timber yard
Period	Nineteenth century
NGR	SJ 85388 98777
Source	OS mapping; Goad 1928
Description	Ducie Saw Mills were located to the north of the Site, however, the timber stores and yards extended into the Site boundary (Plate 20). Goad's map of 1928 shows the locations of these timber stores, which included the building within the northern area of the Site. Goad's map listed the occupiers of the saw mills as Maddock & Tunaley Ltd. The timber stores also fronted Woodward Place (Plate 21).
Assessment	Remains of the timber stores associated with the mills may survive within the Site boundary.



Plate 20: Ducie Saw Mills shown on the 1908 OS map

Gazetteer Entry 05

Site Name	Cooperage (site of)
Designation	No designation
HER number	-
Site Type	Cooperage (barrel/cask makers)
Period	Twentieth century
NGR	SJ 85376 98727
Source	OS mapping; Goad 1928
Description	Goad's map of 1928 shows a cooperage located within the Site boundary (Plate 21). The buildings are shown on nineteenth century mapping, indicating that the cooperage may have nineteenth century origins.
Assessment	Remains of the cooperage may survive within the Site boundary.

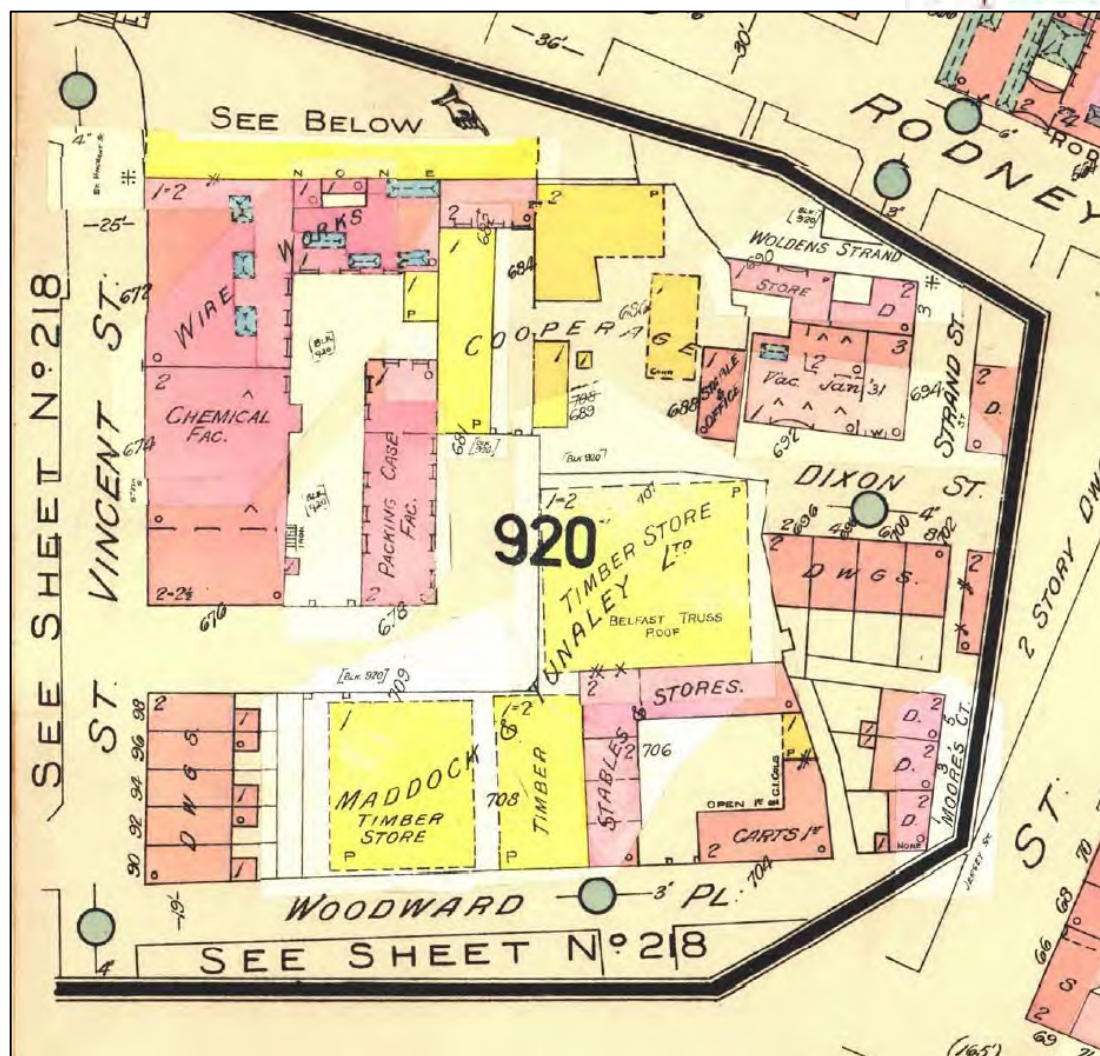


Plate 21: Extract from Goad's map showing the timber stores associated with Ducie Saw Mills, the cooperage and the stables and stores at Woodward Place

Gazetteer Entry 06

Site Name Vincent Works (site of)

Designation No designation

HER number -

Site Type Works

Period Twentieth century

NGR SJ 85352 98738

Source OS mapping; Goad 1928

Description Goad's map of 1928 shows a chemical factory and wire works within the Site. The industrial buildings were located on the site of the former St Vincent's Home and the Titanic Steel Works. The 1948 OS map shows the Vincent Works, which comprised electrical works and wire works. The works was later an engineering works and appears on the 1989 OS map.

Assessment Remains of the structures may survive within the Site boundary.

Gazetteer Entry 07

Site Name	Stables, Stores and Carts (site of)
Designation	No designation
HER number	-
Site Type	Stables, stores and carts
Period	Nineteenth century
NGR	SJ 85364 98688
Source	OS mapping; Goad 1928
Description	Stores, stables and carts are shown on Goad's map of 1928 on the northern side of Woodward Place (Plate 21). The buildings associated with the stores and stables appear on late nineteenth century mapping. The stores were present on the 1948 OS map.
Assessment	Remains of the structures may survive within the Site boundary.

Gazetteer Entry 08

Site Name	Houses along eastern boundary of the Site (site of)
Designation	No designation
HER number	-
Site Type	Dwellings
Period	Nineteenth century
NGR	SJ 385400 398730
Source	OS mapping; census return data
Description	Workers' houses were located along the eastern boundary of the Site. These include houses at Lawton Street and Woldens Strand. Back-to-back houses were shown at Back Woldens Strand on the 1851, 1891 and 1908 OS maps. Some of the houses within the area are shown with cellar lights on the 1891 OS map. By 1922 the back-to-back houses appear to have been knocked through to create a double-depth floorplan or rebuilt. The houses were demolished in the second half of the twentieth century.
Assessment	Remains of the houses may survive within the Site boundary.

Gazetteer Entry 09

Site Name	Houses, numbers 90 to 98 St Vincent's Street (site of)
Designation	No designation
HER number	-
Site Type	Dwellings
Period	Nineteenth century
NGR	SJ 385325 398710
Source	OS mapping; census return data
Description	Houses are shown as at St Vincent's Street (formerly Pott Street) on the 1891 OS map. Outbuildings are shown in the yards of the houses. No cellar lights are shown on the OS mapping. Demolished in the mid-twentieth century.
Assessment	Remains of the houses may survive within the Site boundary.

Gazetteer Entry 10

Site Name	New Islington Mill (site of)
Designation	No designation
HER number	12329.1.0
Site Type	Mill
Period	Nineteenth century
NGR	SJ 8533 9866
Source	OS mapping; census return data
Description	Built c 1800. This mill appears to have been one of the earliest steam-powered factories to have been established within Ancoats, although it has been suggested that it originated as a water-powered concern.
Assessment	The mill was located to the south of the Site boundary, however, buildings and changes to the culvert associated with the mill may fall within the Site boundary.

Gazetteer Entry 11

Site Name	Rodney Street Footbridge (site of)
Site Type	Canal Footbridge
HER number	-
Period	Nineteenth century
NGR	SJ 385358 398785
Source	Bancks & Co. 1831; OS mapping
Description	The footbridge leading to Rodney Street was built at the same time as the canal and demolished sometime after 1972.
Assessment	Remains of the bridge may survive within the Site boundary.

Gazetteer Entry 12

Site Name	Field Boundary (site of)
Site Type	field boundary
HER number	-
Period	Eighteenth century
NGR	SJ 385370 398740
Source	Green 1787-1894
Description	A field boundary is shown on Green's map of 1787-1794. The boundary crossed the Site from east to west.
Assessment	Remains of the field boundary may survive within the Site boundary.

6. Significance

6.1 The Policy Context of Heritage Assets

The archaeological resource of an area can encompass a range of assets, including below-ground remains, earthworks, and standing buildings and other structures. Some of these remains may have statutory protection, such as Scheduled Monuments or listed buildings. Others do not, but may nevertheless be of archaeological significance. Under both national and local planning policy, as outlined below, both statutory and non-statutory remains are to be considered within the planning process.

The NPPF sets out the Government's planning policy and framework for England, and how these are expected to be implemented. The NPPF places particular emphasis on assessing the development proposals in line with an up-to-date local plan. Consequently, Manchester's Core Strategy (adopted July 2012) was consulted as the key Development Plan Document in the Local Development Framework (LDF), with particular reference to Policy EN3: Heritage. In determining applications, local planning authorities must be able to understand the significance of any heritage assets affected by a proposed development in order to assess its impact. This enables the conservation of heritage assets in a manner suitable to their significance so that they can be enjoyed for their contribution to the quality of life of this and future generations, or else they can be recorded and advance understanding of the significance of any heritage assets to be lost in a manner proportionate to their importance and the impact, and to make this evidence publicly accessible.

6.2 Assessment Methodology and Significance Criteria for Below-Ground Archaeological Remains

An accepted methodology for assessing archaeological significance is the Secretary of State's criteria for the scheduling of ancient monuments, outlined in Annex 1 of *Scheduled Monuments: identifying, protecting, conserving and investigating nationally important archaeological sites under the Ancient Monuments and Archaeological Areas Act 1979* (DCMS March 2010). These criteria have all been utilised in this assessment and are listed below:

- Archaeological Interest
- Historic Interest
- Period
- Rarity
- Documentation
- Group Value
- Survival/Condition
- Fragility/Vulnerability
- Diversity
- Potential

6.3 Historic and Archaeological Significance

6.3.1 Archaeological Interest

Archaeological remains of the Titanic Steel Works may give an insight into the layout and processes that took place at the premises during a key period in the technological evolution of the steel-making process. Archaeological remains of St Vincent's Home may give an indication of the conditions that the inmates were living in. Therefore, the works and the home would be of archaeological interest. The potential remains of the water-management system at New Islington Mill would be of archaeological interest as several questions regarding this system are outstanding from the archaeological excavation undertaken at New Islington Mill in 2006. Remains of the field boundary shown on Green's map could provide palaeo-environmental evidence of the post-medieval landscape.

6.3.2 Historic Interest

The St Vincent's Home that may survive as below-ground remains within the Site are of historic interest as this could further inform understanding about diversity, architecture and design of buildings associated with social welfare. Any evidence of the Home will also inform knowledge around its possible contentious history, due to its link to the poor living conditions endured by the working-class of Manchester, particularly the Irish immigrants that arrived in Manchester in the nineteenth century.

The nineteenth-century houses, which may survive as below-ground remains within the Site, are of historical interest due to their link to the poor living conditions endured by the working-class of Manchester, particularly the Irish immigrants that arrived in Manchester in the nineteenth century. Similarly, the industrial sites link the Site to the industrial development of Ancoats.

6.4 Baseline Significance Conditions

6.4.1 Period

No prehistoric, Roman or medieval activity is known to have taken place within the Site, and the potential for such remains is considered to be low due to the intensive development of the Site since the eighteenth century. There is, however, some potential for palaeo-environmental material to survive within the field boundary shown on Green's map (GE12), which may provide evidence of the post-medieval landscape.

The most likely remains to be encountered within the Site would date to the industrial period, which would include nineteenth-century remains of the Titanic Steel Works (GE01), Ducie Saw Mills (GE03), a cooperage (GE05), Rodney Street Footbridge (GE11) and housing (GE08 and GE09). Twentieth-century remains may include St Vincent's Home (GE02) and the Vincent Works (GE06). The industrial period was significant to Manchester's history. Therefore, sites reflecting this nineteenth-century industrial heritage may be considered significant due to period.

6.4.2 Rarity

Any surviving remains of the nineteenth-century industrial works or housing would not be considered significant due to rarity.

6.4.3 Documentation

The historical development of the Site from the late eighteenth century can be traced reasonably well from cartographic and other primary sources. Further documentary research would undoubtedly furnish additional evidence, although this is unlikely to alter the outline and conclusions presented in this assessment.

6.4.4 Group Value

The potential archaeological remains within the Site are associated with the development of Ancoats during the nineteenth century and comprise workers' housing and industrial sites. Any remains within the Site may therefore have some group value.

6.4.5 Survival / Condition

The survival, extent and condition of any below-ground archaeological remains within the Site is presently unknown, however, it is possible that structural elements survive within the Site.

6.4.6 Fragility/Vulnerability

Any buried archaeological remains, should they be present and survive *in-situ*, are vulnerable to damage or destruction during any earth-moving works associated with the proposed development.

6.4.7 Diversity

The heritage assets within the Site are mostly associated with the development of Ancoats during the industrial period. The potential presence of multiple industrial sites, workers' housing and the St Vincent's Home adds diversity to the Site. Therefore, the Site may be considered significant due to diversity.

6.4.8 Potential

There are no prehistoric sites within the Site or its environs, and the potential for prehistoric, Romano-British or medieval remains is considered to be low. The archaeological potential of the Site includes the remains of nineteenth and twentieth-century industrial sites, workers' housing and St Vincent's Home.

Potential industrial sites include the Titanic Steel Works (GE01), the stores of Ducie Saw Mills (GE04) the cooperage (GE05) and Vincent Works (GE06). The late eighteenth-/early nineteenth-century New Islington Mill (GE10) was located directly to the south of the Site although below-ground remains of its water management system may survive within the Site. The investigation of the industrial sites within the Site boundary could contribute to current initiatives and research questions proposed in the *Archaeological Research Framework for North West England* (<https://researchframeworks.org/nwrf/>). These include initiative *Ind7.35* and research questions *Ind56* and *Ind58*:

Ind7.35: Undertake industry specific studies of those industries that have received little archaeological attention.

Ind56: How can we improve our understanding of twentieth century factory organisation?

Ind58: How have industrial buildings adapted to new technology and processes?

There is some potential for remains of workers' houses to survive within the Site boundary, which would include the houses at Lawton Street, Back Woldens Strand, and St Vincent's Street. Many of these houses had cellars, which were occupied as cellar dwelling during the nineteenth century.

The study of workers' housing has been recognised as a legitimate avenue of research. This is articulated in the current *Archaeological Research Framework for North West England* (Newman and McNeil 2007; McNeil and Newman 2007), which identified several initiatives that should be prioritised for archaeological research of the industrial period, including *Initiative 7.24 and 7.25*:

Ind7.24: "Need to excavated urban cellars to examine life 'below stairs' in the middle-class house and cellar dwellings and workshops in working-class houses".

Ind7.25: "Where threatened with possible redevelopment excavations are required of now undeveloped and cleared former working-class areas regarded as slums".

Ind7.6: "A study of the development of workers' housing in Greater Manchester and east Lancashire should be undertaken to examine the development of different housing types to inform conservation agendas"

6.5 Significance of Below-Ground Archaeological Remains

It can be concluded from the information gained from the desk-based research that the Site is of archaeological interest and has the potential to contain remains of several sites.

Using the above criteria, the Site most likely contains non-statutory remains of high local significance (Table 6). The Titanic Steel Works (GE01) and St Vincent's Home (GE02) may be of high local significance. Any remains associated with New Islington Mill would likely regionally significant, which could include elements of the water management system. Other archaeological remains within the Site would be of local significance.

GE No	Heritage Asset Name	Significance
01	Titanic Steel Works (site of)	High local
02	St Vincent's Home (site of)	High local
03	Culverted Shooters Brook	Local
04	Ducie Saw Mills (site of)	Local
05	Cooperage (site of)	Local
06	Vincent Works (site of)	Local
07	Stables, Stores and Carts (site of)	Low local
08	Houses along eastern boundary of the Site (site of)	Low Local
09	Houses, numbers 90 to 98 St Vincent's Street (site of)	Low Local
10	New Islington Mill (site of)	Regional
11	Rodney Street Footbridge (site of)	Low local
12	Field boundary (site of)	Local

Table 6: Assessment of the significance of the heritage assets identified within or close to the Site

7. Impact of Development

7.1 Development Proposals

The proposed development will deliver sixty-eight Affordable Homes, comprising of 23 houses and 45 apartments within a four-storey building, alongside associated landscaping, boundary treatment, car parking, and cycle parking.

7.2 Impact of Development on Below-Ground Remains

Delivery of the development proposals will necessitate some ground-breaking and landscaping works across the Site, with the potential to impact on buried archaeological remains.

This assessment has demonstrated that the Site has the potential to retain buried remains of industrial sites, including Titanic Steel Works (GE01), Ducie Saw Mills (GE04), Vincent Works (GE06) and a cooperage (GE05), along with workers' housing (GE08 and GE09), St Vincent's Home (GE02), a footbridge (GE11) and hitherto unknown remains associated with post-medieval or early Industrial period exploitation of Shooters Brook (GE03).

Any such remains that do exist within the Site are likely to be of local significance and, without a programme of mitigation, the scheme could damage or destroy these remains.

8. Further Investigation

8.1 Heritage Assets

The NPPF makes clear that where the loss of the whole or a material part of a non-designated heritage asset's significance is justified by a development, the developer should be required to record that asset and advance understanding of its significance, and to make this evidence publicly accessible.

The assessment has demonstrated that there is potential for buried archaeological remains to exist on the Site (Fig. 14), which, pending the extent of their survival and condition, would merit preservation 'by record' through archaeological recording prior to their removal.

8.2 Further Investigation

The scope and extent of any such further investigation will be determined by the Greater Manchester Archaeological Advisory Service (GMAAS), in their capacity as archaeological advisor to Manchester City Council. It may be anticipated, however, that further archaeological investigation via an archaeological strip, map and record evaluation may be required to establish the presence or absence of buried archaeological remains and, if present, their extent and significance.

The evaluation should target the potential remains identified by this assessment including the buried remains of industrial sites, including Titanic Steel Works (GE01), Ducie Saw Mills (GE04), Vincent Works (GE06) a cooperage (GE05), along with workers' housing (GE08 and GE09), St Vincent's Home (GE02), a footbridge (GE11) and any hitherto unknown remains associated with post-medieval or early Industrial water-powered industry along Shooters Brook (GE03).

Should significant archaeological remains be encountered during the strip, map and record, further excavation may be required to offset the harm of the development to the buried archaeological resource, in line with the guidance provided by the National Planning Policy Framework.

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Appendix 1: Figures

- Figure 1: Site location map
- Figure 2: Site boundary superimposed on modern mapping
- Figure 3: Site boundary superimposed on Green's map of 1793
- Figure 4: Site boundary superimposed onto Swire's map of 1824
- Figure 5: Site boundary superimposed onto Bancks & Co.'s map of 1831
- Figure 6: Site boundary superimposed on the Ordnance Survey 1: 1056 Town Plan of 1851
- Figure 7: Site boundary superimposed on the Ordnance Survey 1: 500 Town Plan of 1891
- Figure 8: Site boundary superimposed on the Ordnance Survey 1:2500 map of 1908
- Figure 9: Site boundary superimposed on the Ordnance Survey 1:2500 map of 1922
- Figure 10: Site boundary superimposed on the Ordnance Survey 1:1250 map of 1948
- Figure 11: Site boundary superimposed on the Ordnance Survey 1:1250 map of 1953
- Figure 12: Locations of Gazetteer Entries 01, 04, 05, 06, 07, 08 and 09 shown on modern mapping
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- Figure 14: Areas of archaeological potential



Figure 1:

Site Location

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Figure 2:

Site Boundary Superimposed onto Modern Mapping

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Key:

 Site Boundary

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0

50 m

Scale at A4 1:1000

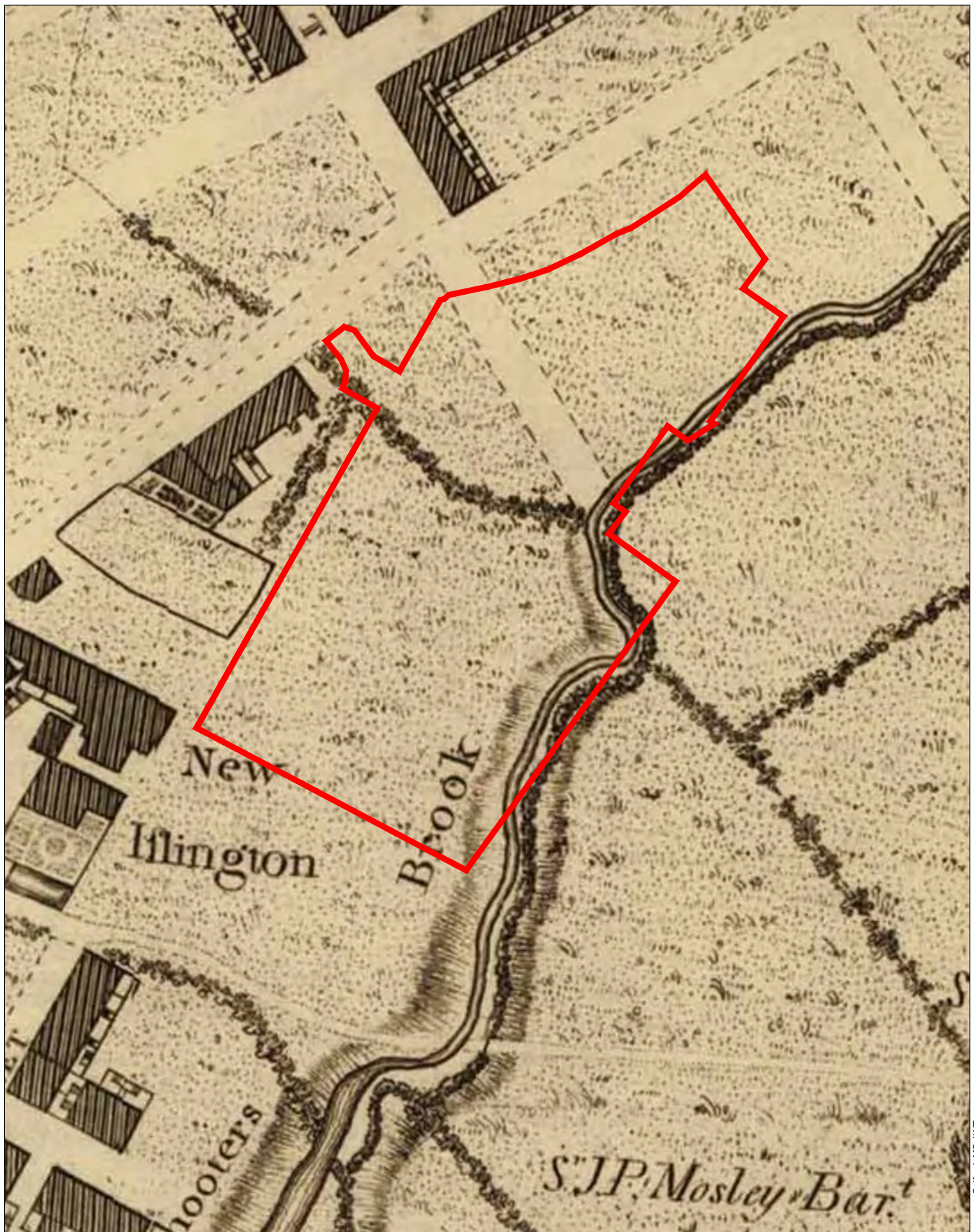


Figure 3:

Site Boundary Superimposed onto Green's Map of Manchester & Salford 1787-94



Key:

— Site Boundary



**SALFORD
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0

50 m



Scale at A4 1:1000



Figure 4:

Site Boundary Superimposed onto Swire's Map of Manchester & the Environs 1824



Key:

— Site Boundary



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0 50 m



Scale at A4 1:1000



Figure 5:

Site Boundary Superimposed onto Bancks & Co's Map of Manchester & Salford 1831



Key:

— Site Boundary



**SALFORD
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0

50 m



Scale at A4 1:1000

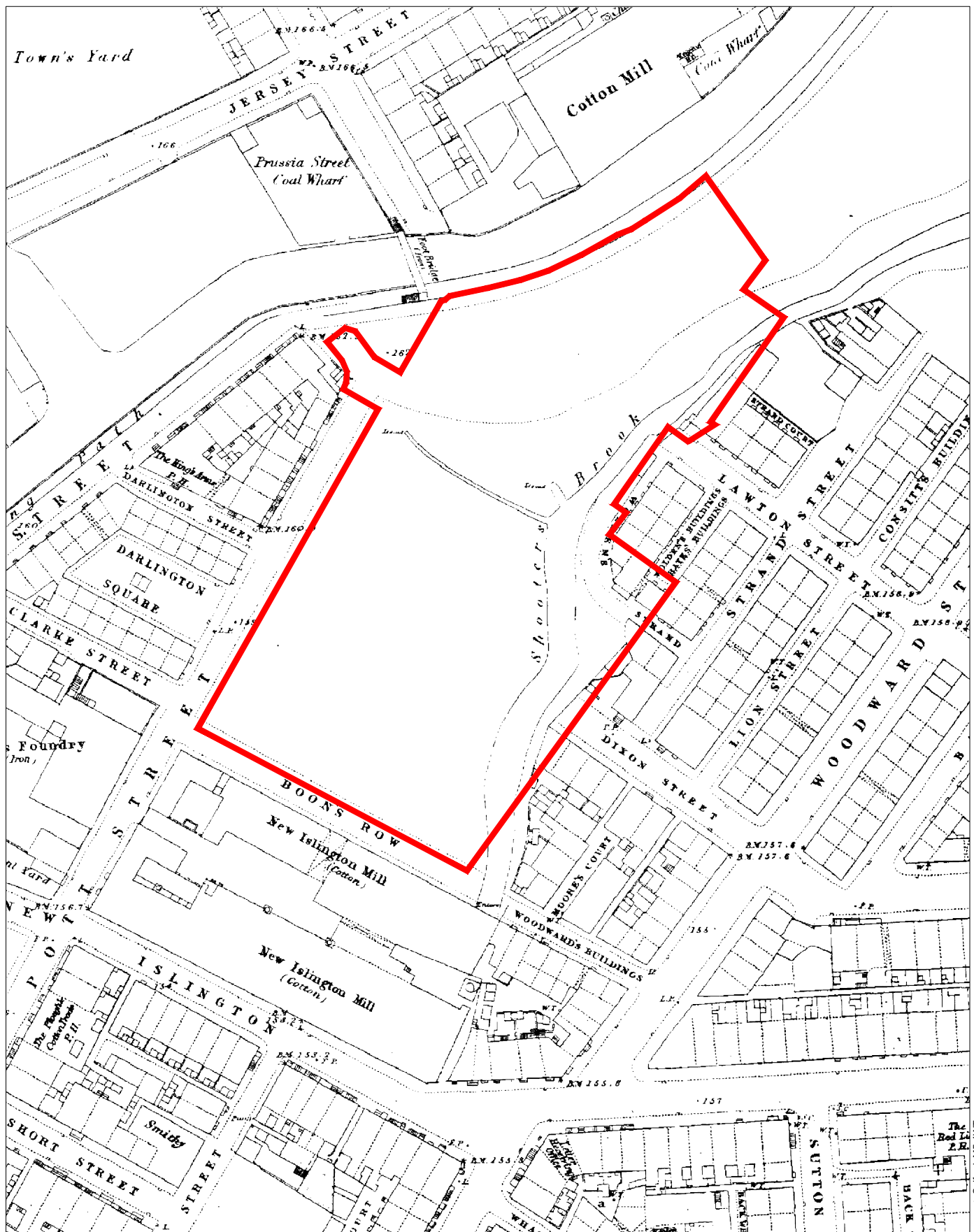


Figure 6:

Site Boundary Superimposed onto the 1:1056 Town Plan of 1851

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0 50 m

Scale at A4 1:1000

Key:

— Site Boundary



Figure 7:

Site Boundary Superimposed onto the 1:500 Town Plan of 1891

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Key:

— Site Boundary

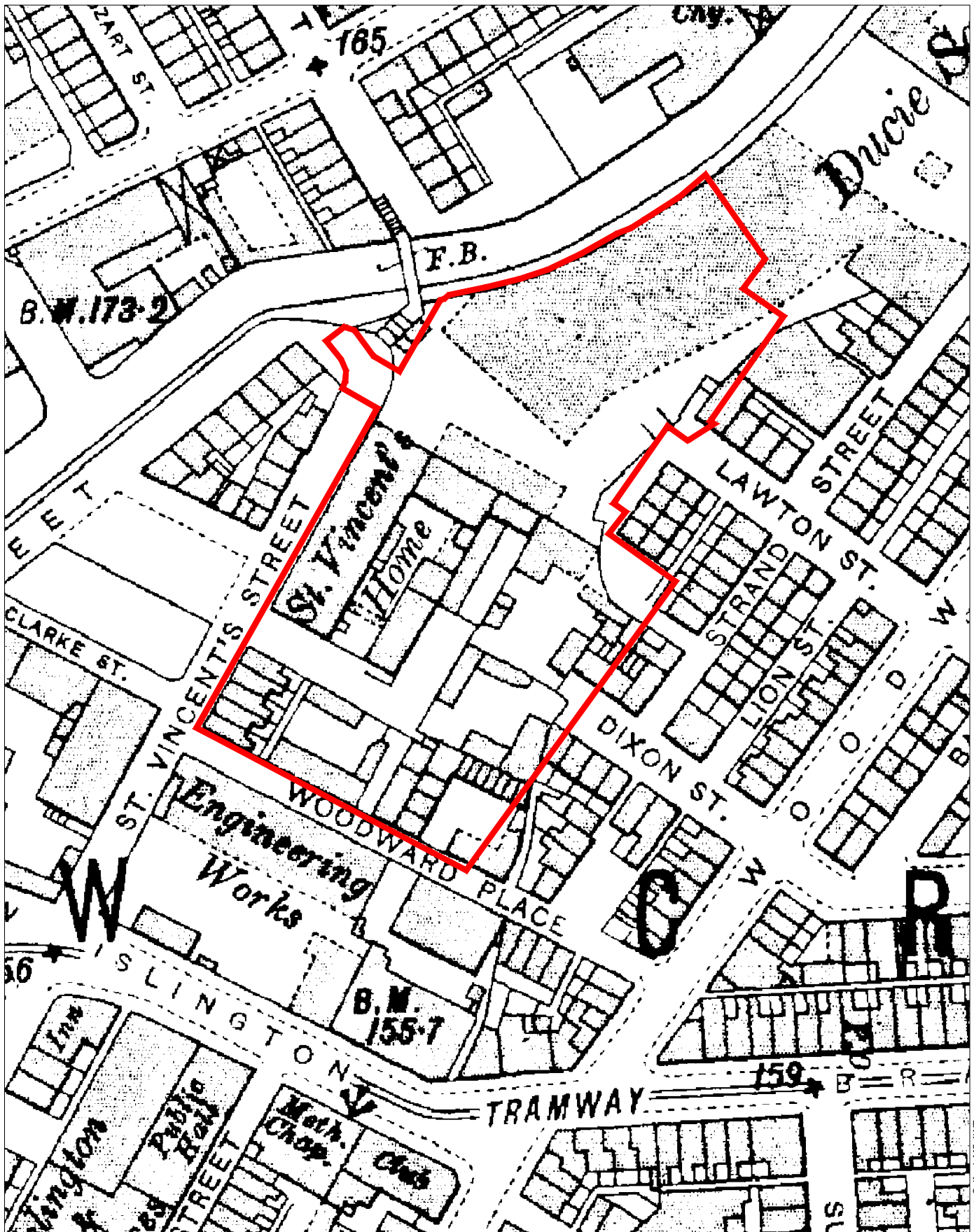


Figure 8:

Site Boundary Superimposed onto the 1:2500 County Series map of 1908

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Key:

— Site Boundary



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0

50 m

Scale at A4 1:1000

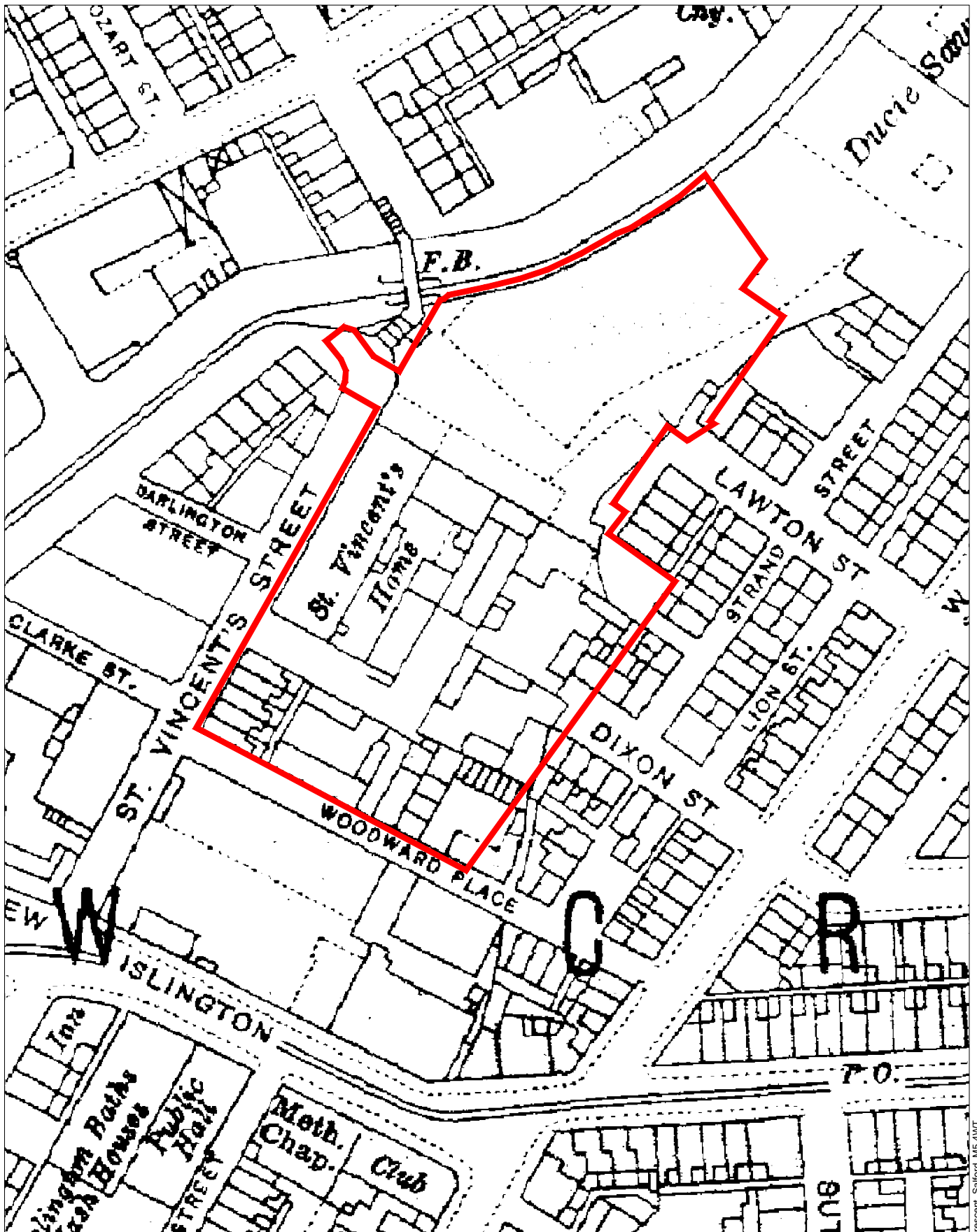


Figure 9:

Site Boundary Superimposed onto the 1:2500 County Series map of 1922

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Key:

— Site Boundary



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0

50 m

Scale at A4 1:1000

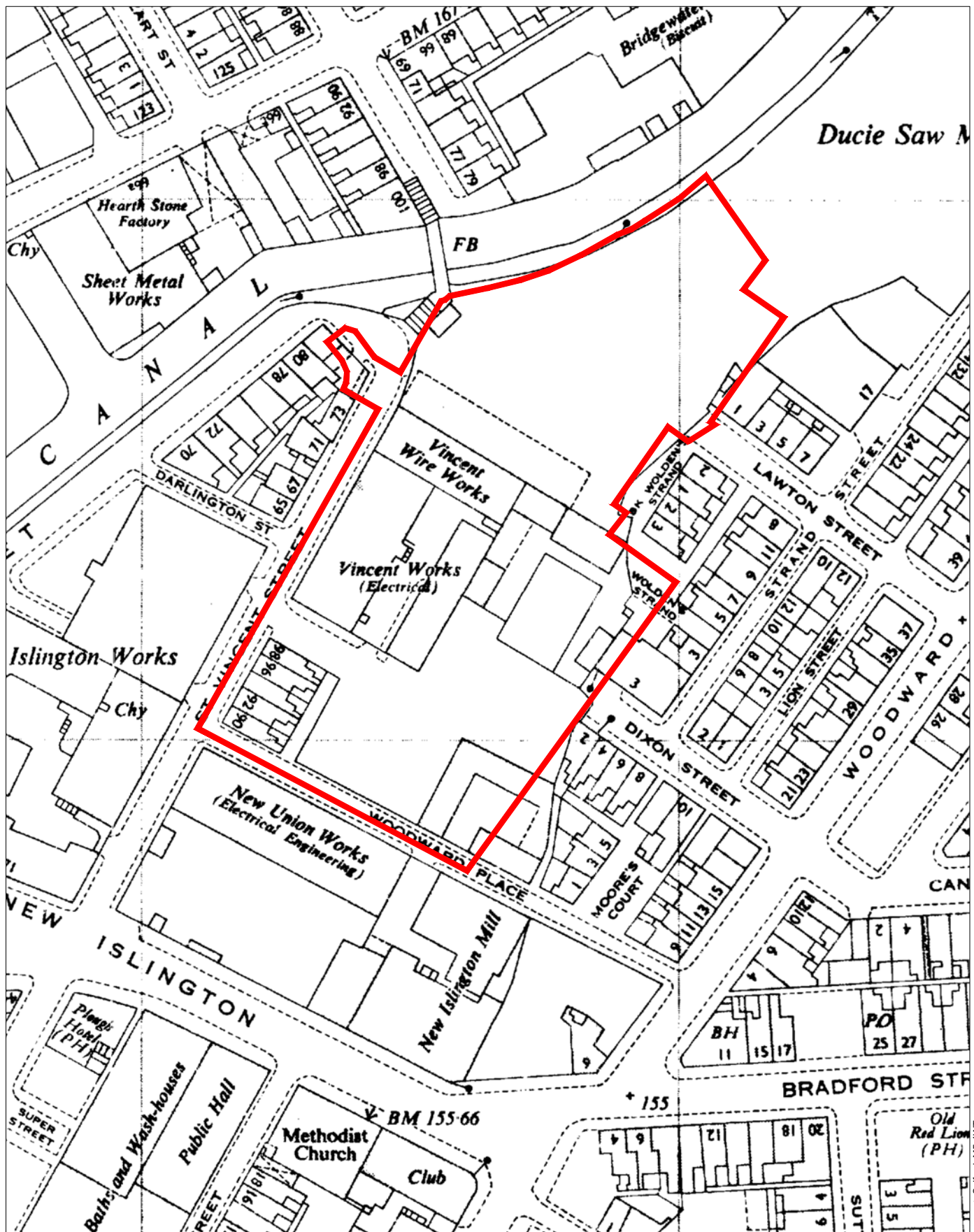


Figure 10:

Site Boundary Superimposed onto the 1:1250 National Grid Map of 1948

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Key:

— Site Boundary



Figure 11:

Site Boundary Superimposed onto the 1:1250 National Grid Map of 1953

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Key:

— Site Boundary



Figure 12:
Gazetteer Entries 01, 04, 05, 06, 07, 08 and 09
shown on modern mapping

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0 10 20 m

- Key:
- GE01 Titanic Steel Works (site of)
 - GE04 Ducie Saw Mills (site of)
 - GE05 Cooperage (site of)
 - GE06 Vincent Works (site of)
 - GE07 Stables, Stores and Carts (site of)
 - GE08 Houses along eastern boundary of Site (site of)
 - GE09 90 to 98 St Vincent's Street (site of)



Figure 13:

Gazetteer Entries 02, 03, 10, 11 and 12 shown on modern mapping

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Key:

- GE02 St Vincent's Home (site of)
- GE03 Culverted Shooters Brook
- GE10 Islington Mill (site of)
- GE11 Rodney Street Footbridge (site of)
- GE12 Field Boundary (site of)



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0 10 20 m



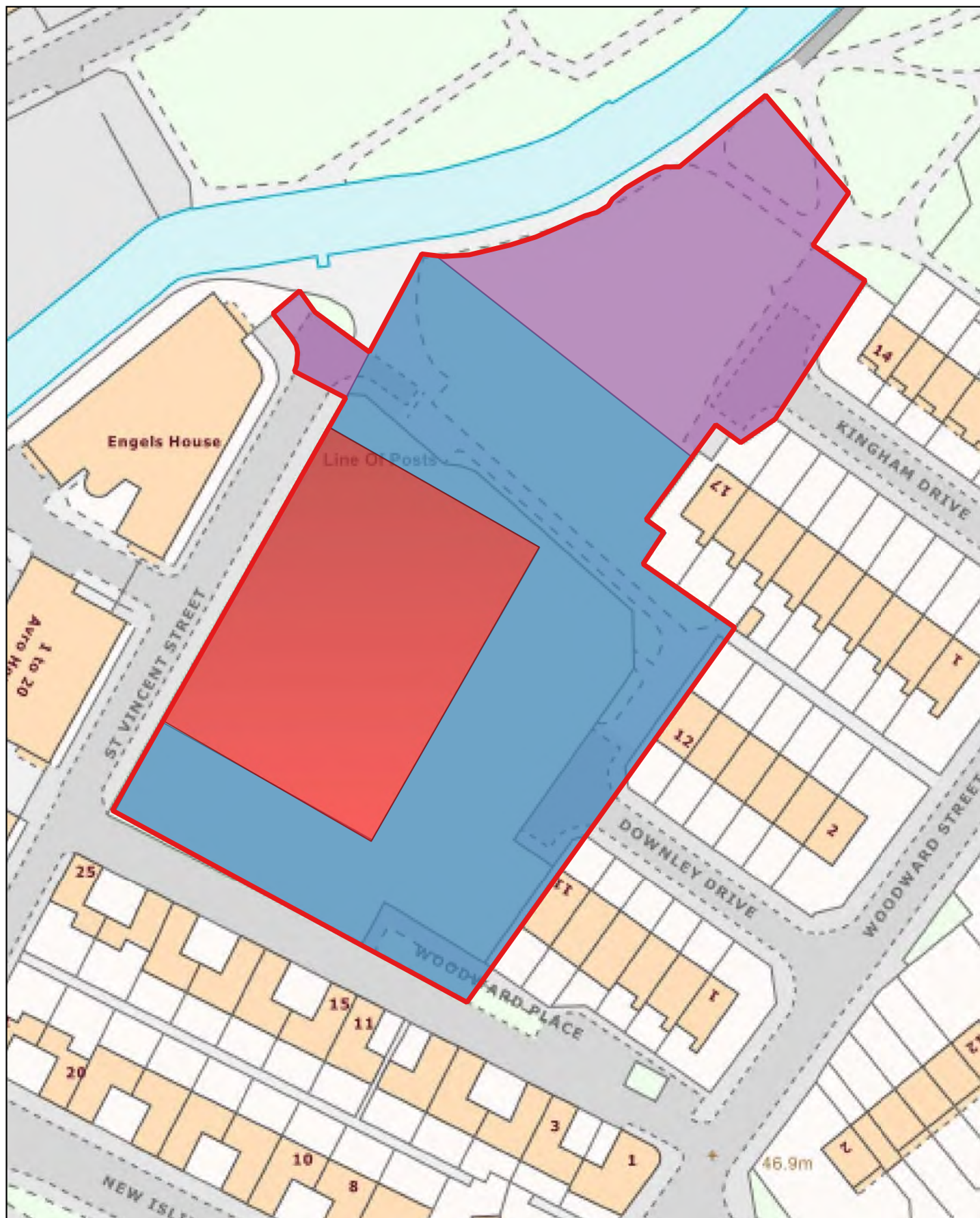


Figure 14:

Areas of Archaeological Potential

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Key:

- Site boundary
- High Archaeological Potential
- Medium Archaeological Potential
- Low Archaeological Potential



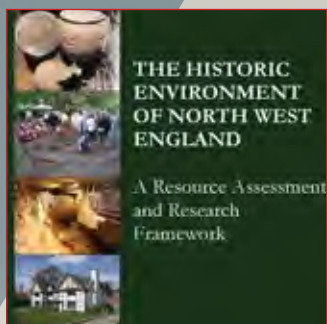
**SALFORD
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0 10 20 m





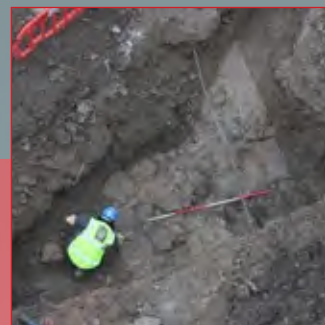
CONSULTANCY



DESK-BASED ASSESSMENTS



WATCHING BRIEF & EVALUATION



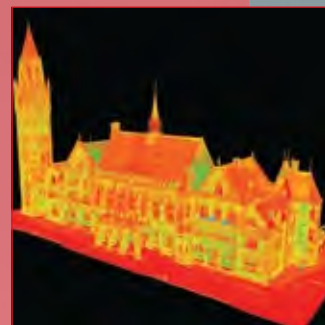
EXCAVATION



BUILDING SURVEY



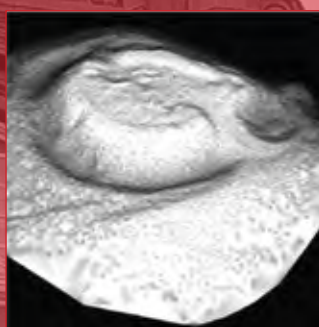
3D LASER SCANNING



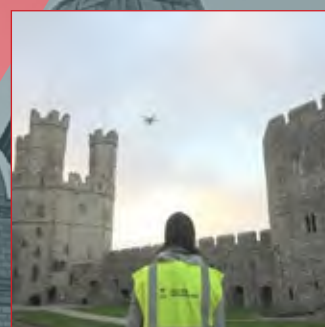
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